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112

A COLLECTIVE INDEX  
OF THE  
TRANSACTIONS, PROCEEDINGS  
AND ABSTRACTS  
OF  
THE CHEMICAL SOCIETY  
1883—1892

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COMPILED  
BY  
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Index

1883-92

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## PREFACE.

THIS Index has been compiled under the direction of a Committee appointed by the Council of the Chemical Society, consisting of the Treasurer (Chairman), the Secretaries, the Editors, Dr. Forster Morley, Mr. J. W. Rodger, and Dr. Palmer Wynne. The actual execution of the work was entrusted to Mrs. Dougal, who has been assisted at various times by Mrs. Guthrie, Miss Neale, B.Sc., Miss Green, Miss Morfee, Miss Sharpe, and Mr. D. A. Gracey.

The Committee are indebted for assistance, and for advice as to the arrangement of special subject matter, to Captain Abney, Mr. Michael Carteighe, Mr. Thiselton-Dyer, Mr. Lazarus Fletcher, Professor Percy Frankland, Mr. A. J. Green, Dr. Halliburton, Professor Hummel, Professor Japp, Professor Meldola, Dr. Morris, Dr. D. H. Scott, Professor Tilden, Mr. Tutton, Dr. J. A. Voelcker, Dr. Walker, and Professor Warington. They desire especially to thank Dr. Forster Morley for the great care with which he has read and corrected the whole of the proof-sheets, and for the many valuable suggestions he has made as the compilation was passing through the press.

The work is divided into two main parts: (1) an Index of Authors arranged alphabetically, with the titles of their respective papers in chronological order; and (2) an Index of Subjects.

The general arrangement of each part is self-evident, and calls therefore for very little explanation. With a view to the more certain identification of authors, care has been taken to give their names in full whenever possible. In some instances, however, even the full name has not sufficed, and it has been necessary, as a means of further identification, to add the name of the town or place with which the author is connected. Thus we have Thomas Andrews of Belfast and Thomas Andrews of Sheffield; Hermann Müller of Hersfeld, Hermann Müller of Munich, and Hermann Müller of Thurgau. In the case of Russian authors, whose papers for the



most part reach the Society's publications through German sources, the advice of Professor Menschutkin and Dr. Lewkowitsch has been followed in employing the German system of transliteration, as more likely to lead to uniformity of spelling.

Errors in the names of authors found in the Annual Indexes, and discovered in the course of compiling the Collective Index of Authors, were of course rectified before that section of the work was passed for press; other errors detected subsequently when arranging the Subject-Index are given in a separate list on p. vii. A few papers were found to have been omitted from the Annual Indexes, and hence are not given in their proper place in the Collective Index: a list of these "Additional Entries" will be found also on p. vii. Errors of transcription both in the Annual and in the Collective Indexes when detected have also been corrected.

After careful consideration the Committee decided that the Index of Subjects should be essentially, and in the main, alphabetical, but that whenever practicable the substances should also be alphabetically arranged under certain well-defined main groups, *e.g.* alkaloids, carbohydrates, glucosides, terpenes, etc. It was further decided that Agricultural Chemistry, which constitutes a large and to some extent an independent section, should be placed apart.

The Collective Index will be found to differ in many particulars from the Annual Indexes upon which it is based. This was inevitable, as in the earlier Annual Indexes especially, no consistent method of arrangement was followed. Changes of nomenclature were necessarily frequent, and although special care has been exercised that in the Collective Index the same substance should not be entered under different names, it is possible that a few instances of synonyms may have escaped detection. Entries omitted in the subject-portion of the Annual Indexes, discovered in the preparation of the Collective Index, have been duly inserted; others discovered subsequently when the separate sections had been printed off are given on p. ix. In very many cases only the title of a paper appears in the Annual Indexes, and it has been necessary to give supplementary entries as more accurately descriptive of its contents. Hence a large number of additional entries have been made in the Collective Index during its compilation; others of which the desirability was seen later, but which could not be added at the proper time, are given on p. x *et seq.* The list also includes alternative names and double entries omitted from the



Collective Index. Clerical and printer's errors which had escaped detection when reading the proofs have, when discovered, been rectified.

In all cases where these have been definitely ascertained position numbers have been given. The sequence of radicles in the name of a substance, and the nomenclature of acidic and aromatic radicles have been arranged in a more systematic manner than hitherto, and except in cases where the "trivial" name was judged to be too well established to be altered, the name which seemed best to express the constitution of the substance has been preferred. Alternative names have, however, been given, with, of course, cross references. Matters relating to inorganic salts will be found under the name of the particular metal: thus, ferrous sulphate will be found under Iron. In the case of organic salts, where the acid is as a rule the distinctive or significant substance, it has been deemed more convenient to place the entries under the name of the acid: thus barium lactate will be found under Lactic acid. Whenever a prefix, such as ortho, meta, para, iso, secondary, tertiary, mono, di and tri, etc., is not part of the alphabetical arrangement, it is printed in italics.

T. E. T.

## ABBREVIATIONS.

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T. = Transactions.

P. = Proceedings.

A. = Abstracts.

*o* = ortho.

*m* = meta.

*p* = para.

*n* = normal.

*prim.* = primary.

*sec.* = secondary.

*tert.* = tertiary.

$\psi$  = pseudo.

*d* = dextro.

*l* = laevo.

*i* = inactive.

*s* = symmetrical.

*as* = unsymmetrical.

b.p. = boiling point.

m.p. = melting point.

# ADDITIONS AND CORRECTIONS.

## INDEX OF AUTHORS.

### ADDITIONAL ENTRIES.

- Capus**, the sorghum sugar industry in the United States, 1885, A., 1273.  
**Johnson**, *George Stillingfleet*, magnesia containing rare earths, 1886, A., 980.  
**Meissl**, *Emerich*, and *Friedrich Strohmer*, formation of fat from carbohydrates in animals, 1884, A., 912.  
**Meyer**, *Victor*, remarks on Bonz's paper on the bromination of  $\alpha$ - and  $\beta$ -thiophenic acids, 1885, A., 1207.  
**Niederist**, *Gustav*, Reichenbach's picamar, 1883, A., 1004.  
**Rospendowski**, *W.*, artificial blue colours, 1884, A., 1449.  
**Vibrans**, influence of manuring on the composition of potatoes, 1883, A., 882.  
**Weiske**, *Hugo*, and *Bernhard Schulze*, influence of certain amides on the animal organism, 1885, A., 409.

### CORRECTIONS.

- Angebliis**, should be **Angelbis**.  
**Anrep**, *Vasilius Kron*, should be **Anrep**, *Vasilius von*.  
**Austen**, *Peter Tournsend*, and *George B. Hurff*, delete 1885, A., 512.  
**Baeyer**, *Adolf von*, constitution of benzene, 1887, A., 362, add 1887, A., 370.  
**Baur**, *R.*, estimation of fatty acids as fats, should be estimation of fatty acids in soaps.  
**Becker**, *George E.*, should be **Becker**, *George F.*  
**Behr**, *Arno*. See *Friedrich Soxhlet*, should be See *Franz Soxhlet*.  
**Ben Sande**, *Alfredo*, should be **Ben Saude**, *Alfredo*.  
**Borelli**, *S.*, should be **Borrelli**, *S.*  
**Brown**, *Horace*, should be **Brown**, *Horace T.*  
**Buchner**, *Eduard*, and *Theodor Curtius*, action of ethyl diazoacetate on aromatic hydrocarbons, 1885, A., 207, should be 1885, A., 1207.  
**Chanlaroff**, *Mochsin Berg*, should be **Chanlaroff**, *Mochsin Bey*, and add butyrolactone and  $\alpha$ -ethylbutyrolactone, 1885, A., 374.  
**Chrustschoff**, *K. v.*, new type of pyroxene, 1886, A., 776, add 1886, A., 990.  
**Claus**, *Adolph*, and *Carl Wenzlik*, should be **Carl Wenzlick**.  
**Cook**, *Ernest H.*, detection and estimation of iodine, 1885, T., 47, should be 1885, T., 471.  
**Degener**, *Paul* (and others), separation of sugar from molasses, 1884, A., 447, should be 1884, A., 1447.  
**Divers**, *Edvard*, constitution of the fulminates, add 1884, T., 19.  
**Dunstan**, *Wyndham Rowland*, and *Edmund James Wooley*, should be *Edmund James Woolley*.  
**Dupré**, *August*, battery with two liquids, 1885, A., 853, should be **Dupré**, *Anatole*.



**Eder, Josef Maria**, behaviour of the haloid compounds of silver to the solar spectrum, 1885, A., 703, *add* 1885, A., 936.

**Ellenberger, Wilhelm**, and **Victor Hofmeister**, the digestive fluids and digestion of the horse, 1884, A., 472, *add* 1884, A., 92.

**Erdmann, Hugo**, and **Richard Kirchhoff**, *should be* **Richard Kirchhoff**.

**Farbaky, Stefan**. See **Stefan Schenck**, *should be* See **Stefan Schenck**.

**Fittig, Rudolph**, and **Moritz Rühlmann**, *should be* **Moritz Rühlmann**.

**Fleck, Hermann**, *should be* **Fleck, Hugo**.

**Frank, A.**, 1884, A., 1226, *should be* **Frank, Adolph**.

**Fresenius, Heinrich**, and **Stocks**, *delete* and **Stocks**.

**Friedel, Charles**, brucite of Cogne, vale of Aosta, *add* 1883, A., 1061.

**Frölich, C.**, *should be* **Fröhlich, Carl**.

**Gabriel, Gato**, *should be* **Gabriel, Sato**.

**Gabriel, Sato**, estimation of cellulose, 1829, A., 923, *should be* 1892, A., 923.

**Genth, Frederick Augustus**, hübnerite, hessite, bismutite and natrolite, 1892, A., 793, *should be* **Genth, Frederick Augustus**, and **Samuel Lewis Penfield**.

**Giles, Wm. B.**, and **A. Schearer**, *should be* **A. Shearer**.

**Gouy, A.**, and **H. Rigollet**, *should be* **H. Rigollet**.

**Grabowski, Nicolaïs H.**, *should be* **Grabowski, Julijan**.

**Gray, Thomas Andrew**, *should be* **Gray, Thomas**.

**Gray, Thomas Andrew**, and **James Johnstone Dobbie**, *should be* **Gray, Thomas, Andrew Gray**, and **James Johnstone Dobbie**.

**Günzberg, Alfred**, *should be* **Günzburg, Alfred**.

**Hansen, H.**, *should be* **Hanssen, H.**

**Hantzsch, Arthur Rudolf**, and **Felix Hermann**, *should be* **Felix Herrmann**.

**Höhnell, Franz Xavier R. (Freiherr) von**, *should be* **Höhnell, Franz Xavier R. (Freiherr) von**.

**Hönig, Max**, and **L. Jesser**, carbohydrates, 1888, A., 126, *should be* 1888, A., 1266.

**Hullemann, I.**, *should be* **Hulleman, I.**

**Irvine, Robert**, and **J. Sims Woodhead**, *should be* **G. Sims Woodhead**.

**Jenckel, Ludolf**, *should be* **Jenkel, Ludolf**.

**Kirchoff, Richard**, *should be* **Kirchhoff, Richard**.

**Klein, G.**, *should be* **Klien, Georg**.

**Klinger, Heinrich Conr.**, action of sunlight on organic compounds, 1888, A., 888, *should be* 1886, A., 888.

**Knop, Adolf**, action of phosphorus pentasulphide on aniline, 1888, A., 265, *should be* **Knop, Aug.**

**Knop, W.**, analysis of silicates, 1883, A., 379, *should be* **Knop, Johann August Ludwig Wilhelm**.

**Knorr, Ludwig**, and **Friedrich Jödicke**, reduction of hydroxylepidine and methyllepidone, 1887, A., 278, and pyrazolone derivatives from ethyl benzoylacetate, 1887, A., 1121, *for* **Friedrich Jödicke**, *read* **Karl Klotz**.

**Ladenburg, Albert**, and **Friedrich Carl Petersen**, duboisine, 1877, A., 740, *should be* 1887, A., 740.

**Landolf, Fr.**, *should be* **Landolph, Fr.**

**Lea, Matthew Carey**, combinations of silver chloride, bromide and iodide with colouring matters, 1885, A., 350, *add* 1885, A., 611.

**Lippit, T. P.**, *should be* **Lippitt, T. P.**

**Ludwig, Ernst**, and **Eduard Zillner**, 1890, A., 962, *should be* 1891, A., 962.

**Martiny, Benno**, and **Wilhelm Fleischmann**, *delete* and **Wilhelm Fleischmann**.

**Mennell, Ernst**, *should be* **Mennel, Ernst**.

**Miller, Oscar**,  $\alpha$ -hydroxyphthalic acid, 1884, A., 1177, *should be* **Miller, Oswald**.

**Mochsin Beg Chanlaroff**, *should be* See **Chanlaroff, Mochsin Bey**.

**Moddermann, Tjoden**, *should be* **Modderman, Rudolph Siero Tjaden**.

Müntz, *Achille*, and *Emile Aubin*, estimation of carbonic anhydride in the atmosphere, 1884, A., 659, *add* 1884, A., 710.

Obolenski, *Ivan N.*, should be **Obolonski**, *Ivan N.*

Osmond, *Floris*, heating and cooling of melted steel, 1887, A., 21, should be 1887, A., 219.

Ostwald, *Wilhelm*, electrical conductivity of acids, 1885, A., 323, *add* 1885, A., 3.

Perkin, *William Henry, junior*, and *Augustus Schloesser*, 1890, P., 162, should be 1889, P., 162.

Pflug, *Constantin*, ignatiteffite, 1887, A., 1085, *add* 1890, A., 454.

Pickering, *Percival Spencer Umfreville*, should be **Pickering**, *Spencer Percival Umfreville*.

Pinner, *Adolf*, *m*-diazines (pyrimidines), delete 1885, A., 158, and 1891, A., 60.

Prafulla Chandra Ray, should be **Rây**, *Prafulla Chandra*.

Quantin, *Henri Emile*, volumetric estimation of sulphates, 1889, A., 1089, should be 1889, A., 1087.

Reinhart, *J. H.*, should be **Reinhardt**, *J. H.*

Rickmann, *James Pellatt*, should be **Rickman**, *James Pellatt*.

Rising, *William Bradley*, should be **Rising**, *Willard Bradley*.

Romanis, *Robert*, gold from Burmah, 1887, T., 221, should be 1887, A., 221.

Rossol, *Alexander*, should be **Rosoll**, *Alexander*.

Rubricus, *H.*, 1892, A., 1030, 1521, should be 1892, A., 1030, 1524.

Salzeberger, *Georg*, should be **Salzberger**, *Georg*.

Schwerin-Lowitz (*Graf*) von, should be **Schwerin-Löwitz** (*Graf*) von.

Snijders, *Aarnout Johannes Cornelis*, should be **Snijders**, *Aarnout Johannes Cornelis*.

Stahel, *Rudolph*, A., 1259, should be 1890, A., 1259.

Stavelly, *William W.*, should be **Staveley**, *William W.*

Steinscheider, *Josef*, should be **Steinschneider**, *Josef*.

Stilwell, *Charles M.*, should be **Stillwell**, *Charles M.*

Stocks, delete See *Heinrich Fresenius*, and *add* sulphuric acid as manure, 1884, A., 926.

Thorpe, *Thomas Edward*, and *Henry Halliburton Robinson*, 1890, P., 165, should be 1889, P., 165.

Tiemann, *Ferdinand*, and *Rudolf Haarman*, should be **Rudolf Haarmann**.

Veley, *Victor Herbert*, conditions of the reaction between copper and nitric acid, 1890, A., 170, should be 1890, A., 701.

Verneuil, *Auguste Victor Louis*, phosphorescent blende, 1888, A., 791, 1282, should be 1888, A., 791, 1248.

Wallach, *Otto*, new compounds of the camphor series and a new terpene, 1891, A., 1686, should be 1891, A., 1086.

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### ADDITIONAL ENTRIES.

*m*-Allylthiouramidobenzoic acid (ASCHAN), 1884, A., 907.

*m*-Amido-*s*-diphenylmethylcarbamide (LELLMANN and BENZ), 1891, A., 1215.

Benzenesulphonic anhydride (ABRAHAM), 1886, T., 692; P., 229.

Benzenesulphonic chloride, as a reagent for amines (HINSBERG), 1891, A., 49.

Benzonitrile, dispersive power of (BARBIER and ROUX), 1889, A., 805.



**Bis- $\beta$ -hydroxyphenyl propyl ketone**, *di-m-chlorodi-o-nitro-* (EICHENGRÜN and EINHORN), 1891, A., 1098.  
***n*-Butylaniline** (KAHN), 1886, A., 263.

**Carboxyamidophenylacetic acid** (KOSSEL), 1892, A., 469.  
***o*-Carboxyphenylacetimide**, *dibromo-* (LE BLANC), 1889, A., 257.

**Diethoxydiphenylethane** (*ethylidenediethoxybenzene*) (GATTERMANN, EHRHARDT and MAISCH), 1889, A., 862.

**Dihydroxydiphenylsulphone** (*hydroxysulphonebenzide*) and **dihydroxyditolylsulphone** (*hydroxydimethylsulphonebenzide*) (TASSINARI), 1889, A., 245.

**Dihydroxyphenylmethylglutaric acid** (CARLSON), 1892, A., 1471.

**Dimethoxydiphenylethane** (*ethylidenedimethoxybenzene*) (GATTERMANN, EHRHARDT and MAISCH), 1889, A., 862.

**3:5-Dimethyl-2-ethylpyridine** (WAAGE), 1884, A., 172; (DÜRKOPF and GÜTTSCHE), 1890, A., 795, 1002.

**1:2-Dimethylpyrrolidine** (MERLING), 1891, A., 1507.

**Di-*p*-phenethyl-carbamide and -guanidine** (PAUCKSCH), 1885, A., 256.

**Diphenylacetoneitrile**, *trinitro-* (v. RICHTER), 1888, A., 1186.

**Diphenyldimethylthiocarbamide** (BILLETER), 1887, A., 823.

**Diphenyldisulphone-ethoxyphenylenediamine** (*m-ethoxydiphenyldisulphone-o-phenylenediamine*) (AUTENRIETH and HINSBERG), 1892, A., 161.

**Diphenyldisulphone-ethoxyphenylenediethylidiamine** (*ethoxydiphenyldiethylid-sulphonephenylenediamine*) (AUTENRIETH and HINSBERG), 1892, A., 161.

**Diphenylenemethane oxide** (RICHTER), 1884, A., 324.

**Diphenyliethenylamide** (NÖLTING and WEINGÄRTNER), 1885, A., 384; (MABERY and KRÄUSE), 1890, A., 371.

action of carbonyl chloride on (LOEB), 1885, A., 1213.

**Diphenylhexylic tricyanide** (KRAFFT and v. HANSEN), 1889, A., 697.

***s*-Diphenylmethylcarbamide**, *m-amido-*, and *m-nitro-* (LELLMANN and BENZ), 1891, A., 1215.

**1:2-Diphenyl-3-methylpyrazolone** (v. PERGER), 1886, A., 98; (MÜLLER), 1886, A., 899.

**Diphenyl-*p*-tolylmethanecarboxylic acid** [m.p. 203°] (v. HEMILIAN), 1887, A., 266.

**1:2-Di-*m*-tolyl-3-methylpyrazolone** (v. PERGER), 1886, A., 1046.

**Hydroxyisoamylamine** (RADZISZEWSKI and SCHRAMM), 1884, A., 1190.

**Phosphatic deposits of the south-east of France** (DE GASPARIN), 1885, A., 127.  
of Montay and Forest (LADRIÈRE), 1889, A., 222.

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**Acetic acid**, potassium salt of, electrolysis of solutions of, *add* (BROWN and WALKER), 1891, A., 1192.

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**Acetonetrisulphone**, *trithio-*. See *tri*Thioacetone-trisulphone, p. 1010.

**Acetonylphenylic sulphide** (*thiophenoxyacetone*), *add* (AUTENRIETH), 1891, A., 541.

**Acetylhexoic acid.** See  $\beta$ -Methyl- $\alpha$ -ethylacetylpropionic acid, p. 670.

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**Acetylpicamar**, *add* (PASTROVICH), 1883, A., 1005.

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$\psi$ -Aconitic acid. See also *s*-Trimethylene-1:2:3-tricarboxylic acid, p. 1051.

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**Pilocarpidine**, *add* (HARDY and CALMELS), 1886, A., 725; 1887, A., 1058.

**Quinine**, appearance of fluorescence in salts of, *add* (ARMSTRONG), 1892, P., 189; (HARTLEY), 1892, P., 189.

**Quinoidine.** See p. 900.

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- Solanidine**, for two last entries read Solanine.  
**Ulexine**. See also p. 1060.  
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**Alunogen**. See also Keramohalite, p. 610.  
**Amenylbenzene**, *add* (SCHRAMM), 1883, A., 977.  
**4-Amido-2:6-dimethyl-*m*-diazine**. See also Cyanmethine, p. 333.  
***di*Amidoditolyl ketone**. See Ditolyl ketone, *diamido*-, p. 411.  
**4-Amido-5-methyl-2:6-diethyl-*m*-diazine**. See also Cyanethine, p. 333.  
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**Amido- $\beta$ -naphthylenetoluquinoxaline**. See  $\beta$ -Naphthylenetoluquinoxaline, p. 717.  
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**Amidophenyl amidotolyl ketone** (LIEBERMANN), 1888, A., 1097, *should be* 1883, A., 1097.  
**Amidophenylacetic acid**. See Phenylacetic acid, amido-, p. 797.  
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***o*-Amidophenylglyoxylic acid**. See Isatinic acid, *and not* Isatic acid.  
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***m-di*Amido-*p*-phenyl- $\alpha$ -methylpropionic acid**, *should be m-diAmido- $\alpha$ -p-tolylpropionic acid*.  
**4-Amido-1-phenylpyrazolone-3-carboxylic acid**. See 1-Phenylpyrazolone-3-carboxylic acid, 4-amido-, p. 824.  
***p*-Amidophenyl-*p*-tolylamine**, for See Tolyphenylenediamine, *insert* (REICHOOLD), 1890, A., 610.  
 **$\gamma$ -Amidopropyl hydrogen sulphate**. See Propylsulphuric acid,  $\gamma$ -amido-, p. 884.  
 **$\alpha$ -Amido-*iso*succinamic acid**. See *iso*Succinamic acid,  $\alpha$ -amido-, p. 958.  
 **$\alpha$ -Amido-*iso*succinic acid**. See *iso*Succinic acid,  $\alpha$ -amido-, p. 959.  
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**Amido-*ar*-tetrahydro- $\alpha$ -naphthol**. See *ar*-Tetrahydronaphthol, amido-, p. 986.  
**Amidotetrahydronaphthylhydrazine**. See Tetrahydronaphthylhydrazine, amido-, p. 986.  
**Amidotetramethylbenzene (*duridine*)**. See Tetramethylbenzene, amido-, p. 990.  
**5-Amido-1:2:3:4-tetramethylbenzene (*prehnidine*)**. See 1:2:3:4-Tetramethylbenzene, 5-amido-, p. 990.  
**Amidothionaphthol**, *delete entries and* See Naphthol, amidothio-, p. 709, and  $\beta$ -Naphthol, amidothio-, p. 710.  
**2-Amido-*m*-toluic acid**. See *m*-Toluic acid, 2-amido-, p. 1029.  
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***di*Amidotoluquinol**. See 2:5-Toluquinol, 4:6-*diamido*-, p. 1033.  
**Amidotrimethylbutyllactic acid**, *add* (WEIL), 1886, A., 528.  
**1-Amidotriphenylmethane**. See Triphenylmethane, 1-amido-, p. 1055.  
**2:4:6-*tri*Amido-*m*-xylene**. See *m*-Xylene, 2:4:6-*tri*amido-, p. 1092.  
**6-Amido-*m*-xylyl methyl ketone**. See *m*-Xylyl methyl ketone, 6-amido-, p. 1095.  
**Amylic alcohol**. See also Methyl ethylcarbinol, p. 670.  
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**Anilidoisethionic acid**. See also Phenyltaurine, p. 826.  
**Anilidoperezone**, *add* (ANSCHÜTZ and LEATHER), 1886, T., 717.  
**Anilidotoluene**, *should be* See Phenyltoluidine *and not* Phenyltolylamine.  
**Aniline, thionyl-**, *add* (MICHAELIS), 1891, A., 715.  
**Anilinesulphononic acid**. See also Phenylsulphonamic acid, p. 825.  
**Animals, diseases of**, *add* (PASTEUR), 1884, A., 623.  
**Anisylthiocarbamide, mono- and di-thio-**. See Thioanisylthiocarbamide, p. 1010.  
**Antimony, vapour density of** (MENSCHING and MEYER), 1887, A., 445, *should be* 1887, A., 888.  
**Aspergillin**. See also Palmellin, p. 778.  
**Atmospheric air, percentage of oxygen in**, *add* (HEMPEL), 1885, A., 592.  
**Atomic weight of gold**, *delete* (WESTMORELAND), 1887, A., 81, *and add* (KRÜSS), 1887, A., 778.  
**of oxygen** (GROSHANS), 1889, A., 643, *should be* (GROSHANS), 1889, A., 463, *and add* (NOYES), 1891, A., 1154.



**Atomic weight of rhodium, add** (JÜRGENSEN), 1883, A., 1060.

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**Azo-resorcinol and diazo-resorcinol.** See also Resazurin, p. 910.

**Salicenyloximepropenyl- $\omega$ -carboxylic acid, add** (MILLER), 1889, A., 255.

**Beer-wort.** See also Wort, p. 1090.

**Benzene, heats of combustion and formation of** (STOHMANN, RODATZ and HERZBERG), 1886, A., 499, *should be* 1886, A., 409.

chloro-derivatives of, thermochemistry of (BERTHELOT and MATIGNON), 1889, A., 1311, *should be* 1891, A., 1311.

**Benzidine, thionyl-.** See Thionylbenzidine, p. 1015.

**Benzoic acid,  $\alpha$ -thio-.** See  $\alpha$ -Thiobenzoic acid, p. 1011.

**Benzoic sulphinide.** See also "Saccharin," p. 919.

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 thio- (GUARESCHI), 1884, A., 294; (MARCKWALD), 1886, A., 864.  
*trithio*- (MARCKWALD), 1886, A., 864; 1888, A., 127; (BAUMANN and FROMM), 1890, A., 25; 1891, A., 1008, 1010.
- Metacetaldehyde** (*metalddehyde*), heat of combustion of (LUGININ), 1889, A., 668.
- Paracetaldehyde** (*paralddehyde*) (FRANCHIMONT), 1883, A., 453.  
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- Acetaldehydeaniline** (v. MILLER and PLÖCHL), 1892, A., 1191.
- Acetaldehydephenylhydrazone** (*ethylidenephénylhydrazine*), action of heat on (JAPP and KLINGEMANN), 1888, T., 542.  
*p*-brom- (NEUFELD), 1889, A., 251.  
*m*-nitr- (BISCHLER and BRODSKY), 1890, A., 150.
- Acetaldehydesulphone**, *trithio*- (BAUMANN and FROMM), 1890, A., 26.
- Acetaldoxime**, preparation of (DUNSTAN and DYMOND), 1892, T., 473; P., 90.  
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- Acetaldoximes** (DUNSTAN and DYMOND), 1892, T., 470; P., 89, 135; (FRANCHIMONT), 1892, A., 951.
- Acetalresorcinol** (CAUSSE), 1887, A., 40.
- Acetallylcarbamide** (MARCKWALD), 1892, A., 1327.

- Acetalyl- $\alpha$ -naphthylthiocarbamide**, (MARCKWALD), 1892, A., 1331.
- Acetalylphenylthiocarbamide** (WOHL and MARCKWALD), 1889, A., 624.
- Acetalyl-*p*-tolylthiocarbamide**(MARCKWALD), 1892, A., 1328.
- Acetalyl-*m*-xylthiocarbamide** (MARCKWALD), 1892, A., 1329.
- Acetamide** (MASON), 1888, P., 96; 1889, T., 107; (MEYER), 1889, A., 381. preparation of (SCHULZE), 1883, A., 1088.
- formation of, from acetic acid and ammonia (MENSCHUTKIN), 1884, A., 1295.
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- action of acids on (OSTWALD), 1883, A., 575.
- action of hydrogen on (ESSNER), 1885, A., 245.
- action of hydroxylamine on (HOFFMANN), 1887, A., 911.
- combination of, with metallic chlorides (ANDRÉ), 1886, A., 337.
- mercury derivative of, action of iodine on (TAFEL and ENOCH), 1890, A., 973.
- Acetamide**, brom- (BUCHNER and PAPENDIECK), 1892, A., 827.
- chlor-, action of bromine on (v. HOFMANN), 1886, A., 45.
- dichlor-* and *dichlorobrom-* (ZINCKE and KEGEL), 1890, A., 489.
- cyan- (HENRY), 1887, A., 796.
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- Acetamidine**. See Ethenylamide.
- o*-**Acetamidoacetophenone**, *esobrom-*, and  *$\omega$ -dibromo-*m*-brom-* (v. BAEYER and BLOEM), 1884, A., 1026.
- o*-**Acetamidoacetophenoneoxime** (AUWERS and v. MEYENBURG), 1891, A., 1377.
- Acetdiamidoazobenzene** (NIETZKI), 1884, A., 1016.
- o*-**Acetamidobenzaldehyde** (FRIEDLÄNDER and GÜHRING), 1884, A., 1020.
- p*-**Acetamidobenzaldehyde** (HERZBERG), 1885, A., 662.
- Acetamidobenzaldehyde-green**(FISCH and SCHMIDT), 1884, A., 1316.
- p*-**Acetamidobenzaldoxime** (GABRIEL and HERZBERG), 1883, A., 1104; (HERZBERG), 1885, A., 662.
- o*-**Acetamidobenzamide**, derivatives of (WEDDIGE), 1887, A., 1043.
- o*-**Acetamidobenzanilide** (KÖRNER), 1887, A., 1045.
- Acetamidobenzene-*m*-azodimethylaniline** (WALLACH), 1887, A., 41.
- Acetamidobenzene-*m*-diazopiperidine** (WALLACH), 1887, A., 131.
- o*-**Acetamidobenzoic acid**, bromination of (ALT), 1889, A., 986.
- m*-**Acetamidobenzoic acid** (PELLIZZARI), 1886, A., 548.
- Acetamidobenzoic acids**, *m*- and *p*-, mononitro-derivatives of, and their products of reduction (KAISER), 1886, A., 149.
- o*-**Acetamidobenzophenone** (v. BAEYER and BLOEM), 1883, A., 198; (AUWERS and v. MEYENBURG), 1891, A., 1378.
- o*-**Acetamidobenzylacetanilide** (PAAL and KRECKE), 1892, A., 81.
- p*-**Acetamidobenzylphthalimidine**(HAFNER), 1889, A., 983; 1890, A., 487.
- Acetamidobisazobenzene** (NIETZKI and DIESTERWEG), 1888, A., 1082.
- 4:5:3-**Acetamidobromonitrobenzyl cyanide**. See Acetamidophenylacetanitrile.
- p*-**Acetamidoisobutylbenzene**, bromonitro- (GELZER), 1889, A., 44. nitro- (GELZER), 1888, A., 266.
- Acetamidocarbazole** (MAZZARA and LEONARDI), 1892, A., 616.
- Acetamidochrysene** and its derivatives (ABEGG), 1891, A., 730.
- Acetamidocumic acid** (WIDMAN), 1884, A., 303.
- Acetamido-derivatives** of the aromatic series, halogen-substituted, and their derived *p*-diazines (ABENIUS and WIDMAN), 1889, A., 134.
- 4-**Acetamido-2:6-dimethyl-*m*-diazine** (PINNER), 1884, A., 723; 1889, A., 1004.
- p*-**Acetamidodiphenyl sulphide** (ZIEGLER), 1890, A., 1292.
- p*-**Acetamidodiphenylmethane**(MANNS), 1889, A., 261.
- o*-**Acetamidoethenylamidocarvacrol** (MAZZARA), 1891, A., 188.
- o*-**Acetamidoethenylamidothymol** (MAZZARA), 1891, A., 188.
- $\omega$ -**Acetamidoethylpiperonylcarboxylic anhydride** (PERKIN), 1890, T., 1016.
- Acetamidoguanidine salts** (THIELE), 1892, A., 1297.
- p*-**Acetamidohydrocinnamic acid**, bromo- (GABRIEL), 1883, A., 195.
- Acetamidohydroxynaphthaquinone** (KEHRMANN and WEICHARDT), 1889, A., 1197.
- Acetamidohydroxypropylbenzoic acid** (WIDMAN), 1884, A., 317.
- o*-**Acetamido-*p*-hydroxypropylbenzoic acid** (WIDMAN), 1886, A., 466.



- Acetamidohydroxyquinone** (NIETZKI and SCHMIDT), 1889, A., 968.
- p*-**Acetamido-malachite-green** (KAESWURM), 1886, A., 553.
- Acetamido-1-methylquinoline** (NÖLTING and TRAUTMANN), 1891, A., 328.
- Acetamido- $\alpha$ -naphthaquinone** (MEERSON), 1888, A., 713.
- Acetamido- $\alpha$ -naphthaquinoneacetimide** (MEERSON), 1888, A., 713.
- Acetamido- $\beta$ -naphthoic acids** (EKSTRAND), 1891, A., 78, 79.
- $\alpha$* -**Acetamido- $\beta$ -naphthol** (BÖTTCHER), 1885, A., 659.
- 4:3:2-Acetamidonitroresol** (NIETZKI and RUPPERT), 1891, A., 308.
- Acetamidonitrosocarbazole** (MAZZARA and LEONARDI), 1892, A., 616.
- o*-**Acetamidophenol**, <sup>o</sup>chlor- (ASCHAN), 1887, A., 814.
- p*-**Acetamidophenylacetamide** (PURGOTTI), 1891, A., 562.
- Acetamidophenylacetonitrile**, bromonitr- (GABRIEL), 1883, A., 64.
- o*-**Acetamidophenylethylhydrazine** (HEMPEL), 1890, A., 613.
- o*-**Acetamidophenylhydrazine** (BISCHLER), 1890, A., 150.
- p*-**Acetamidophenyl ethylxanthate** (LEUCKART), 1890, A., 605.
- o*-**Acetamidophenyl phenylcarbamate** (LEUCKART), 1890, A., 761.
- o*-**Acetamidophenylmethylhydrazine** (HEMPEL), 1890, A., 613.
- aa*-**Acetamidophenylsulphonepropionic acid**, and its *p*-halogen derivatives (KÖNIG), 1892, A., 1090.
- as*-**Acetamidoisophthalic acid** (LOEWENHERZ), 1892, A., 1464.
- o*-**Acetamidopiperonylnitrile** (HABER), 1891, A., 706.
- o*-**Acetamidoquinoline** (KYRITZ), 1890, A., 1324.
- Acetamidostyrychnine** (LOEBISCH and SCHOOP), 1886, A., 814.
- p*-**Acetamidostyrene**, bromo- and *d*nitro- (GABRIEL and HERZBERG), 1883, A., 1123; (HERZBERG), 1885, A., 662.
- p*-**Acetamidothiophenol** (LEUCKART), 1890, A., 605.
- p*-**Acetamidotoluene-*o*-azodiethylaniline** (WALLACH), 1887, A., 41.
- Acetamidotolueneazodimethylanilines**, *o*- and *p*- (WALLACH), 1887, A., 41.
- Acetamidotoluic acid** (v. MILLER), 1891, A., 1095.
- o*-**Acetamido-*p*-toluic acid**, nitr- (NIEMENTOWSKI), 1889, A., 1066.
- Acetamidotolylloxamethane**. See **Ethylic acetamidotolylloxamate**.
- p*-**Acetamido-*o*-tolylurethane** (SCHIFF), 1892, A., 1203.
- p*-**Acetamidotriphenylcarbinol** (v. BAEYER and LÖHR), 1890, A., 1141.
- p*-**Acetamidotriphenylmethane** (v. BAEYER and LÖHR), 1890, A., 1141.
- Acetanilide**, formation of, from acetic acid and aniline (MENSCHUTKIN), 1884, A., 1295.
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- action of benzoic chloride on (MELDOLA and SALMON), 1888, T., 780.
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- sodium derivative of, action of carbonic anhydride on the (SEIFERT), 1885, A., 983.
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- detection of (FLÜCKIGER), 1888, A., 761; (VITALI), 1888, A., 1136; (RITSERT), 1890, A., 1349.
- See also Antifebrin.
- Acetanilide**, amido-. See **Acetophenylenediamine**.
- brom- (ABENIUS), 1890, A., 268.
- m*-bromo-*p*-nitr- (CLAUS and SCHEULEN), 1891, A., 564.
- 3:5:4-*di*bromonitr- (CLAUS and WEIL), 1892, A., 1205.
- 2:3:4:5-*tetrachlor*- (TUST), 1888, A., 836.
- α*-cyan- (QUENDA), 1892, A., 1072.
- o*-, *m*-, and *p*-iod- (KÖRNER and WENDER), 1888, A., 1279, 1280.
- p*-nitr-, reduction of (MIXTER), 1884, A., 665.
- 1:2:3-, 1:3:4-, and 1:3:6-*dinitr*- (WENDER), 1890, A., 885.
- thio- (JACOBSON), 1886, A., 700.

- Acetanilide-*p*-sulphonic acid** (*acetyl-sulphanilic acid*). (NIETZKI and BENCKISER), 1884, A., 1024.
- Acetanilidoacetic acid** (REBUFFAT), 1887, A., 1108; 1890, A., 623; (PAAL and OTTEN), 1890, A., 1415.
- chlor- (ABENIUS), 1888, A., 854; 1890, A., 268.
- Acetanilidobutyric acid** (BISCHOFF and MINTZ), 1892, A., 1338.
- $\beta$ -Acetanilidoisobutyric acid and lactone** (BISCHOFF and MINTZ), 1892, A., 1339.
- $\alpha$ -Acetanilidocoumarin** (REBUFFAT), 1890, A., 623.
- $\beta$ -Acetanilidoglutaranil** (ANSCHÜTZ), 1891, A., 742.
- $\beta$ -Acetanilidoglutaranilic acid** (ANSCHÜTZ), 1891, A., 742.
- $\beta$ -Acetanilidoglutaric anhydride** (ANSCHÜTZ), 1891, A., 742.
- $\alpha$ -Acetanilidopropionic acid** (NASTVOGEL), 1890, A., 1160.
- Acetanisidine, dinitr-** (WENDER), 1890, A., 751.
- Acetanisidines, *o*-, *m*-, and *p*-** (KÖRNER and WENDER), 1888, A., 1280.
- Acetantranilic acid** (FRIEDLÄNDER and HENRIQUES), 1883, A., 188; (DOEBNER and v. MILLER), 1883, A., 602.
- Acetates, decomposition of, by water** (FOUSSEREAU), 1887, A., 767.
- chlor-, physical properties of (HENRY), 1885, A., 1121.
- etheral, action of alcohols and metallic alkylic oxides on (PURDIE), 1887, T., 632; P., 79.
- cyan- (HALLER), 1888, A., 823, 1298.
- 1:3:4-Acetazimidotoluene** (BOESSNECK), 1886, A., 874.
- Acetenyltrimethylammonium**. See Trimethylacetenylammonium.
- Acet-*p*-ethoxyphenylhydrazide** (ALTSCHUL), 1892, A., 1081.
- Acetethylenediamine, dicyan-** (GUARESCI), 1892, A., 1071.
- Acetethyl-*p*-nitranilide** (MELDOLA and SALMON), 1888, T., 778.
- Acetethyl-*o*-phenylenediamine** (HEMPEL), 1890, A., 612.
- Acetic acid in plants** (BORGMANN), 1883, A., 611.
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- production of, from cellulose (ISAAC), 1892, A., 1421.
- preparation of concentrated (GORING), 1885, A., 105.
- magnetic rotation of hydrated (PERKIN), 1886, T., 779.
- Acetic acid, electrical conductivity of solutions of** (CROMPTON), 1888, T., 122; (HARTWIG), 1888, A., 399.
- electrochemistry of (JAHN), 1890, A., 99; (BERTHELOT and MATIGNON), 1892, A., 1139.
- specific heat of gaseous (BERTHELOT and OGIER), 1883, A., 6; (THRELFALL), 1887, A., 429.
- thermochemistry of (JAHN), 1890, A., 99; (BERTHELOT and MATIGNON), 1892, A., 1139.
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- estimation of the strength of (ANON.), 1885, A., 1267.
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- Acetic acid, aluminium salt of, preparation of** (ATHENSTÄDT), 1884, A., 540.
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- Acetic anhydride**, decomposition of, by water (MENSCHUTKIN and WASSILIEFF), 1890, A., 359.  
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- Acetic chloride**, preparation of (AUGER and BÉHAL), 1890, A., 234.  
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- Acetic fluoride** (MESLANS), 1892, A., 1068, 1069.
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- Acetimido- $\beta$ -chlorethyl ether** (GABRIEL and NEUMANN), 1892, A., 1332.



- Acetimidomethylenic ethylenic disulphide** (MIOLATI), 1891, A., 894.
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- Acetoacetaldehyde** and its derivatives (CLAISEN and STYLOS), 1888, A., 671.
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- Acetoacetamide**, *pentabrom-* (v. PECHMANN and STOKES), 1885, A., 1202.
- ac-m-Acetoacetamidobenzoic acid* (PELLIZZARI), 1891, A., 1485.
- Acetoacetanilide** (KNORR), 1892, A., 708.
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- Acetoacetates**, action of alcohols on the carboxylic alkyl-group in (PETERS), 1888, A., 253.
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- Acetobenzenehydrazo-o-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 975.
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- Acetobenzenehydrazo- $\psi$ -cuminaldehyde** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1209.
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- $\alpha$ -Aceto- $\beta$ -benzo- and  $\beta$ -aceto- $\alpha$ -benzo-m-nitrophenylhydrazides** (BISCHLER and BRODSKY), 1890, A., 150.
- $\beta$ -Aceto- $\alpha$ -benzophenylhydrazide** (MICHAELIS and SCHMIDT), 1887, A., 820.
- Acetobenzoylphenylhydrazide** (RUHEMANN and BLACKMAN), 1889, T., 614.
- Acetobenzylamine**, cyan- (GUARESCHI), 1892, A., 1072.
- Acetobenzyl-p-nitrilanide** (MELDOLA and SALMON), 1888, T., 779.
- Acetobenzylthiocarbamide** (WERNER), 1891, T., 408; (DIXON), 1891, T., 562.
- Acetobenzyl-o-toluidide** (RABAUT), 1892, A., 48.
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- Acetocamphorylphenylhydrazide** (CHAPLIN), 1892, A., 1481.
- Acetocarbamide**, thermochemistry of (MATIGNON), 1891, A., 1448.
- Acetochloralimide** (MOSCHELES), 1891, A., 1003.
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- Acetocumidide**, *mono-* and *di-nitr-* (ENGEL), 1885, A., 1215.
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- Acetodibenzylthiocarbamide** (WERNER), 1891, T., 406.
- Acetodiethylamide**, *trichlor-* (FRANCHIMONT and KLOBBIE), 1888, A., 1062.
- Aceto-p-diethylanilide** (VOSWINKEL), 1889, A., 493.
- Acetodimethylamide**, *trichlor-* (FRANCHIMONT and KLOBBIE), 1888, A., 1062.
- Acetodiphenylcarbamide** (KÜHN), 1885, A., 260.
- Acetodiphenylethylenediamine** (BISCHOFF and NASTVOGEL), 1889, A., 1010.
- Acetodiphenylhydrazide** (TAFEL), 1892, A., 710; (GATTERMANN, JOHNSON, and HÖLZLE), 1892, A., 843.
- p*-brom- (BÖLSING and TAFEL), 1892, A., 982.
- Acetodiphenyltolylenediamine**. See Bisphenylaceto-o-tolylenediamine.
- Acetodi-o- and p-tolylhydrazide** (GATTERMANN, JOHNSON, and HÖLZLE), 1892, A., 843.
- Acetoethyl-**. See Acetethyl-

- Acetofenchylamine** (WALLACH and GRIEPENKERL), 1892, A., 1239.
- Acetofluoranilide** (WALLACH), 1887, A., 131.
- Acetoformimide** (PINNER), 1883, A., 1090.
- Acetoglycocine** (*aceturic acid*), preparation of (CURTIUS), 1883, A., 1088; 1884, A., 1306.  
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- Acetoglycolyldibrom-*o*-toluidide** (ABENIUS and WIDMAN), 1889, A., 135.
- Acetohexadecylanilide** (KRAFFT and GÖTTIG), 1889, A., 129.
- Acetohydrazobenzene** (STERN), 1884, A., 1015.
- Acetohydroxamic acid** (HOFFMANN), 1890, A., 127.
- Acetohydroximidoacetonitrile** (SÜDERBAUM), 1892, A., 816.
- Acetol**. See Acetylcarbinol.
- Acetomethylamide**, *trichlor*- (FRANCHIMONT and KLOBBIE), 1888, A., 1062.
- Acetomethylamidomethylthiazole** (HANTZSCH and WEBER), 1888, A., 257.
- Acetomethylanilide**, preparation of (REINHARDT and STAEDEL), 1888, A., 578.  
*m*-chlor- (STAEDEL), 1886, A., 940.  
*m*- and *p*-nitr- (MELDOLA and SALMON), 1888, T., 776.
- Acetomethylantranilic acid** (v. MILLER), 1891, A., 1095.
- 1:2:3-Acetomethylxylylide** (MENTON), 1891, A., 1203.
- Acetonaloxybutyric acid** (WILLGERODT), 1887, A., 1030.
- Acetonaloxyisobutyric acid** (WILLGERODT), 1883, A., 177; 1887, A., 1030.
- $\alpha$ -Acetonaphthalide** (PIERSON and HEUMANN), 1883, A., 916.  
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- $\alpha$ -Acetonaphthalide**, 2:4-bromamido- (MELDOLA), 1885, T., 500.  
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*o*- and *p*-nitro-, action of bromine on a mixture of (ARMSTRONG and ROSSITER), 1891, P., 186.
- $\beta$ -Acetonaphthalide**, *o*-bromo-, action of bromine on (MELDOLA), 1883, T., 7.  
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- Acetonaphthalides**, bromonitr- (MELDOLA), 1883, T., 9; 1885, T., 499.  
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- Acetonaphthylamidoacetic acid** (FORTE), 1890, A., 901.
- Aceto- $\beta$ -naphthylamidoacetic acid** (BISCHOFF and HAUSDÖRFER), 1892, A., 1342.
- Aceto- $\alpha$ -naphthylhydrazide** (FREUND), 1892, A., 509.
- Acetone**, investigation of crude (WOLFES), 1891, A., 819.  
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*trichlorotribrom*- (HANTZSCH), 1888, A., 1191.

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- Acetone**, nitroso- (v. PECHMANN), 1887, A., 1104.  
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- Acetoneacetic acid**, *dithio*- (BONGARTZ), 1886, A., 938.
- Acetone-ammonia**, *tetrachlor*- (LEVY and CURCHOD), 1889, A., 1136.
- Acetoneazobenzene**. See Pyruvaldehyde-phenylhydrazone.
- Acetonebenzil** and its reactions (JAPP and MILLER), 1885, T., 22.  
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- Acetonebenzilimide** (JAPP and MILLER), 1885, T., 24.
- Acetonebenzophenylhydrazide** (MICHAELIS and SCHMIDT), 1887, A., 820.
- Acetonebenzylidenephénylmethylhydrazine** (KOHLEAUSCH), 1890, A., 24.
- Acetoneberberine** (GAZE), 1890, A., 1011.
- Acetonebisazobenzene** (CLAISEN), 1892, A., 710.
- Acetonebromoform** (WILLGERODT and MÜLLER), 1885, A., 648.
- Acetonechloroform** (WILLGERODT), 1883, A., 1079; (WILLGERODT and MÜLLER), 1885, A., 648; (WILLGERODT and GENIESER), 1888, A., 810.  
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- Acetonediacetic acid** (HAITINGER and LIEBEN), 1885, A., 47; (VOLHARD), 1890, A., 30; 1892, A., 432.  
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- Acetonedicarboxylic acid** (v. PECHMANN), 1885, A., 138; 1891, A., 670.  
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- Acetonedicarboxylic acid**, action of diazobenzene and phenylhydrazine on (v. PECHMANN and JENISCH), 1892, A., 161.  
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- Acetonedithylmercaptole**, chlor- (AUTENRIETH), 1891, A., 568.
- Acetonediphenanthraquinone** (JAPP and MILLER), 1885, T., 20.
- Acetonedisulphone**, *trithio*- (BAUMANN and FROMM), 1890, A., 26.
- Acetone-ethylenephénylhydrazine**. See Diphenylethylenepropylidenedihydrazine.
- Acetonehydrazonebenzenesulphonic acid** (PFÜLF), 1887, A., 933.
- Acetonenitrophénylhydrazone** (BISCHLER and BRODSKY), 1890, A., 151.
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- Acetonephenanthraquinone** (JAPP), 1883, A., 596.  
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- Acetonephénylhydrazone** (REISENEGGER), 1883, A., 798.  
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- Acetonephenylmethylhydrazone**, *dinitroso*- (v. PECHMANN and WEHSARG), 1889, A., 48.
- "**Acetone-potash and -soda**" (VAUBEL), 1891, A., 1183.
- Acetonequinol** (HABERMANN), 1885, A., 53.
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- Acetoneresorcinol** (CAUSSE), 1892, A., 1312.
- Acetone-sodium**, action of ethylic chloro-carbonate on (FREER and HIGLEY), 1891, A., 1182.
- Acetonitrile**, synthetic (HENRY), 1887, A., 712.

- Acetonitrile**, heats of combustion and formation of (BERTHELOT and PETIT), 1889, A., 812.  
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- Acetonitrile** and its derivatives, compounds of, with aluminium chloride (GENVRESSE), 1888, A., 932.
- Acetonitrile**, brom- (HENRY), 1886, A., 1001.  
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- Acetonitriles**, chlorinated, and their derivatives, boiling-point anomalies of (BAUER), 1885, A., 1120.
- Aceto-*o*-nitrobenzyl-*p*-toluidide**, reduction of (LELLMANN), 1891, A., 726.
- Acetonitro- $\psi$ -cumididesulphonic acid** (MAYER), 1887, A., 659.
- $\beta$ -Aceto-*o*-nitrophenylalanine**, lactam of (EINHORN), 1884, A., 305.
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- Acetylacetone** (PAAL), 1885, A., 505; (KNORR), 1889, A., 385.  
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- Acetylacetonephenylmethylidihydrazone** (KOHLRAUSCH), 1890, A., 24.
- Acetylcarbamide**, nitr- (FRANCHIMONT and KLOBBIE), 1889, A., 125.
- Acetyldiphenylthiocarbamide** (PAWLEWSKI), 1888, A., 473.
- 5-Acetonyl-4-hydroxy-2-phenyl-6-methyl-*m*-diazine** (PINNER), 1890, A., 70.
- Acetonylphenylic sulphide** (DELISLE), 1889, A., 489.
- Acetonylphthalimide** (GOEDECKE-MEYER), 1888, A., 1294.
- Acetonylquinoline** (FISCHER and KUZEL), 1883, A., 588.
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- Acetophenone**, *exoamido*-, picrate (GOE-DECKEMEYER), 1888, A., 1294.  
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- Acetophenyl- $\alpha$ -isoamylhydrazide** (PHILIPS), 1889, A., 1159.
- Acetophenylbenzylidenehydrazide** (MICHAELIS and SCHMIDT), 1887, A., 821; 1889, A., 1159.
- Acetophenylisobutylhydrazide** (PHILIPS), 1889, A., 1159.
- Acetophenylcarbamic acid**, sodium salt of (SEIFERT), 1885, A., 983.
- Acetophenylcarbamide** (KÜHN), 1885, A., 260.
- Acetophenylcitrazonazide** (MICHAEL), 1886, A., 699.
- Acetophenyldimethylhydrazide** (FISCHER), 1887, A., 932.
- Aceto-*m*-phenylenediamine hydrochloride** (WALLACH and SCHULZE), 1883, A., 583.
- Aceto-*p*-phenylenediamine** and some new azo-derivatives (NIETZKI), 1884, A., 1016.
- Acetophenyl- $\alpha$ -ethylhydrazide** (PHILIPS), 1889, A., 1158.
- Acetophenylhydrazide** (MICHAELIS and SCHMIDT), 1889, A., 1159.
- Acetophenylmethylhydrazide** (FISCHER), 1887, A., 932.
- p*-brom- (BÖLSING and TAFEL), 1892, A., 982.
- chlor- (GATTERMANN and HÜLZLE), 1892, A., 844.
- Acetophenylhydrazonophthalaldehydic acid** (ALLENDOFF), 1891, A., 1371.
- Acetophenylisopropylhydrazide** (PHILIPS), 1889, A., 1159.
- Acetophenylsemithiocarbazide** (DIXON), 1889, T., 303.
- Acetophthalylimide** (ASCHAN), 1886, A., 704.
- Aceto- $\beta$ -tetrahydronaphthylamide** (BAMBERGER and MÜLLER), 1888, A., 712.
- Acetotetrahydro- $\alpha$ - and - $\beta$ -naphthylcarbinylamines** (BAMBERGER and HELWIG), 1889, A., 1199.
- Acetothienone** (*thienyl methyl ketone*) (PETER), 1885, A., 141, 764.
- action of ethylic oxalate on (ANGELI), 1891, A., 550.
- derivatives (PETER), 1885, A., 141, 764; (BRUNSWIG), 1887, A., 236, 237.
- mercuric chloride (VOLHARD), 1892, A., 829.
- Acetothienone**, brom- (GATTERMANN and RÖMER), 1886, A., 537; (BRUNSWIG), 1887, A., 236.
- cyan- (SALVATORI), 1892, A., 304.
- iod- and chlor- (GATTERMANN and RÖMER), 1886, A., 537, 538.
- Acetothienoneoxalic acid** (ANGELI), 1891, A., 550; 1892, A., 154.
- oxime of (SALVATORI), 1892, A., 304.
- Acetothienonephenylhydrazine** (PETER), 1885, A., 141.
- Acetothiocarbimide**, action of aldehyde-ammonia on (DIXON), 1892, T., 530.
- Acetothio- $\beta$ -dinaphthylamide** (KYM), 1889, A., 51.
- Acetothiophenaldoxime** (HANTZSCH), 1891, A., 444.
- Acetothiosulphuric acid**, salts of (PURGOTTI), 1892, A., 1419.
- Aceto-*o*-toluidide** (KELBE), 1883, A., 916.
- action of sulphuryl chloride on (WYNNE), 1892, T., 1045; P., 139.
- nitration of- (NÖLTING and COLLIN), 1884, A., 1012.
- colour reaction of (TAFEL), 1892, A., 709.
- Aceto-*o*-toluidide**, 5-brom- (ALT), 1889, A., 1214; (NIEMENTOWSKI), 1892, A., 838.
- 5-brom-, oxidation of, by permanganate (ALT), 1889, A., 987.
- exobrom*- [ $\text{CH}_2\text{Br.CO}$ ] (ABENIUS and WIDMAN), 1888, A., 824.
- exodibrom*- [ $\text{CHBr}_2\text{CO}$ ] (ABENIUS and WIDMAN), 1889, A., 134.
- 5-bromo-3-nitr- (NIEMENTOWSKI), 1892, A., 838; (CLAUS and BECK), 1892, A., 1207.
- 5-bromodinitr- (NIEMENTOWSKI), 1892, A., 838.
- 4-chlor- (GOLDSCHMIDT and HÖNIG), 1886, A., 1022.
- 5-chlor- (LELLMANN & KLOTZ), 1886, A., 452; (WYNNE), 1892, T., 1047.
- 6-chlor- (HÖNIG), 1887, A., 1034.
- exodichlor*- [ $\text{CHCl}_2\text{CO}$ ] (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- 3-nitr- (LELLMANN and WÜRTNER), 1885, A., 974.
- 4-nitr- and 5-nitr- (NÖLTING and COLLIN), 1884, A., 1007, 1012.
- 6-nitr- (ÜLLMANN), 1884, A., 1316; (GREEN and LAWSON), 1891, T., 1014.
- Aceto-*m*-toluidide**, 4-brom- (CLAUS), 1892, A., 1201.
- 4-chlor- (GATTERMANN and KAISER), 1886, A., 49; (GOLDSCHMIDT and HÖNIG), 1886, A., 1022; (CLAUS), 1892, A., 1201.
- 5-chlor- (HÖNIG), 1887, A., 1034.
- 6-chlor- (GOLDSCHMIDT and HÖNIG), 1887, A., 363.
- exodichlor*- [ $\text{CHCl}_2\text{CO}$ ] (RÜGHEIMER and HOFFMANN), 1886, A., 161.
- 6-nitr- (LIMPRICHT), 1885, A., 974.

- Aceto-*p*-toluidide** (KELBE), 1883, A., 916.  
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 3:5-*di*brom- (CLAUS and HERBANY), 1892, A., 175.  
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*exobrom-* [ $\text{CH}_2\text{Br.CO-}$ ] (ABENIUS), 1890, A., 269.  
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 3:5-*di*chlor- (LELLMANN and KLOTZ), 1886, A., 453.  
*exochlor-* [ $\text{CH}_2\text{Cl.CO-}$ ] (BISCHOFF and HAUSDÖRFER), 1890, A., 1285; (ECKENROTH and DONNER), 1891, A., 195.  
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- Acetotoluidides** in relation to animal metabolism (JAFFÉ and HILBERT), 1888, A., 735.
- Aceto-*p*-toluidide-*o*-diazodiethylamide** (WALLACH), 1887, A., 137.
- Aceto-*p*-toluidide-*o*-diazonitroethane** (WALLACH), 1887, A., 137.
- Aceto-*p*-toluidide-*o*-diazopiperidine** (WALLACH), 1887, A., 138.
- Aceto-*o*-tolylamidoacetic acid** (BISCHOFF and HAUSDÖRFER), 1892, A., 1334.  
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- Aceto-*p*-tolylamidoacetic acid** (PAAL and OTTEN), 1890, A., 1415.
- Aceto-*p*-tolylamidoacetic toluidide**, chlor- (BISCHOFF and HAUSDÖRFER), 1892, A., 1336.
- Aceto-*o*-tolylenediamine** (BOESSNECK), 1886, A., 874; (BANKIEWICZ), 1889, A., 866.
- Aceto-*m*-tolylenediamine** (WALLACH), 1887, A., 41.
- Aceto-*o*- and *p*-tolylhydrazide** (GATTERMANN, JOHNSON, and HÖLZLE), 1892, A., 843.
- Aceto-*o*-tolylthiocarbamide** (DIXON), 1889, T., 304; P., 46.
- Acetotrimethylcolchicinamide** (ZEISEL), 1888, A., 614.
- Acetotripiperidine** (BUSZ and KEKULÉ), 1888, A., 302.
- Aceto-*so*vanillic acid** (BERTRAM and GILDEMEISTER), 1889, A., 863.
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- Acetovanilloneoxime** (NEITZEL), 1892, A., 61.
- Acetovanillonephenylhydrazide** (NEITZEL), 1892, A., 61.
- Acetovanillonitrile** (MARCUS), 1892, A., 318.
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- Acetoxime**, formula of (MEYER), 1883, A., 569.  
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- Acetoxime- $\beta$ -naphthylsulphone**(WEGE), 1892, A., 334.
- Acetoximephenylsulphone**(WEGE), 1892, A., 334.
- Acetoxime-*p*-tolylsulphone** (WEGE), 1892, A., 334.
- Acetoximic acids** (TREADWELL and WESTENBERGER), 1883, A., 572; (SCHRAMM), 1883, A., 590.
- Acetoxycetonitrile** (HENRY), 1886, A., 605.
- Acetoxydibromobenzylidenephénylhydrazine** (RÖSSING), 1886, A., 66.
- Acetoxybutyric trichloride**, tertiary (WILLGERODT and DÜRR), 1889, A., 690.
- Acetoxychloro- $\alpha$ -naphthaquinonesulphonic acid** (CLAUS and VAN DER CLOET), 1888, A., 603.
- Acetoxyapocinchénine** (COMSTOCK and KOENIGS), 1888, A., 72.
- Acetoxycodeine** (GRIMAUZ), 1883, A., 359.
- Aceto-*o*-xylidide** (JACOBSEN), 1884, A., 737.
- Aceto-*m*-xylidide**(KELBE), 1883, A., 916; (GREYINGK), 1885, A., 145.  
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- p*-brom-** (ABENIUS), 1888, A., 854; 1890, A., 269.
- p*-chlor-** (CLAUS), 1892, A., 1202.
- thio-** (GUDEMANN), 1888, A., 1282; (JACOBSON and NEY), 1889, A., 771.
- Aceto-*p*-xylidide**, nitr- (NÖLTING, WITT, and FOREL), 1886, A., 58; (WITT), 1889, A., 604.
- Acetoxyphenylacridine** (HESS and BERNTHSEN), 1885, A., 801.
- $\alpha$ -Acetoxy- $\gamma$ -phenylcrotonic acid** (TIERMANN), 1892, A., 472.
- Acetoxyphenylpivalic acid and anhydride** (OTT), 1885, A., 663.
- Acetoxypropionitrile**(HENRY), 1886, A., 605.
- Acetoxypropylbenzoic acid**, nitr- (WIDMAN), 1884, A., 317.
- Acetoxypyridine**(FISCHER and RENOUF), 1884, A., 1370.
- 2-Acetoxy-pyridone**, 3:5-dichloro- (ZINCKE and FUCHS), 1892, A., 449.
- Acetoxytetramethylenecarboxylic acid** (PERKIN and SINCLAIR), 1891, P., 191; 1892, T., 45.
- Aceturic acid**. See Acetoglycocine.
- Acetyl-**. See also Acet- and Aceto-.
- Acetyl chloride**. See Acetic chloride.
- Acetyl compounds**, investigation of (BENEDIKT and ULZER), 1887, A., 620.
- Acetyl compounds**, magnetic rotation of (PERKIN), 1892, T., 800; P., 100.
- Acetyl group**, substitution of the, for the amido-group by aid of the diazo-reaction (MELDOLA), 1888, A., 487.
- Acetyl values**, Benedikt's (LEWKOWITSCH), 1890, P., 72, 91.
- Acetylaccaffeine** (FISCHER), 1883, A., 356.
- Acetyl- $\alpha$ -acetaldoxime** (DUNSTAN and DYMOND), 1892, P., 136.
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- Acetylacetone**, *heptabrom-* (ZINCKE and KEGEL), 1890, A., 1110.  
*perbrom-* (ZINCKE and KEGEL), 1890, A., 1108.  
*hexabrom-* and *hexachlor-* (COMBES), 1888, A., 666.  
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- Acetylacetonephenylmethylhydrazine** (KOHLEAUSCH), 1890, A., 24.
- Acetylacetophenone**. See Benzoylacetone.
- Acetylacrylic acid** (*phenomalic acid*) (PAWLOFF), 1884, A., 41; (WOLFF), 1887, A., 465; 1891, A., 1185.  
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- Acetylacrylic acid** (*phenomalic acid*), *trichlor-* (KEKULÉ and STRECKER), 1884, A., 1122; (ANSCHÜTZ), 1890, A., 365.  
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- Acetylamylacetone** (COMBES), 1887, A., 653.
- Acetylangelicylmethane** (CLAISEN and EHRHARDT), 1889, A., 850.
- Acetylanhydroberberilic acid** (PERKIN), 1890, T., 1041.
- Acetylanhydrocitric acid** (EASTERFIELD and SELL), 1892, T., 1003.  
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- Acetylanisaldoximes**,  $\alpha$ - and  $\beta$ - (HANTZSCH), 1891, A., 443.
- p*-**Acetylanisoiol** (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 963.
- Acetylation** of cellulose (CROSS and BEVAN), 1889, P., 133; 1890, T., 1.
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- Acetylbarbituric acid** (CONRAD and GUTHZEIT), 1883, A., 314.
- Acetylbenzaldehyde**, *dithio-* (BONGARTZ), 1886, A., 938.
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- Acetylbenzilic acid** (KLINGER and STANDKE), 1889, A., 885.
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- Acetylbenzylideneimide** (PINNER), 1889, A., 984.
- Acetylbienone** (LEVI), 1891, A., 551.
- Acetylbrazilein**, *dibrom-* (SCHALL and DRALLE), 1890, A., 997.
- Acetylbromisatin** (v. BAEYER and OECONOMIDES), 1883, A., 201.
- Acetyl- $\alpha$ - and - $\beta$ -bromonaphthalene** (SCHWEITZER), 1891, A., 684.
- Acetylbromothymol** (MAZZARA), 1890, A., 366.
- Acetylbutylchloraldoxime** (SCHIFF and TARUGI), 1892, A., 34.
- Acetylbutylic alcohol** (PERKIN), 1887, T., 718; (COLMAN and PERKIN), 1889, T., 352; P., 80.  
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- Acetylbutylic bromide** (PERKIN), 1887, T., 726; (KIPPING and PERKIN), 1889, T., 332.
- Acetylisobutylic alcohol** (PERKIN and STENHOUSE), 1892, T., 71.
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- $\gamma$ -Acetylbutyric acid** (WOLFF), 1883, A., 455.
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- $\omega$ -Acetylisobutyric acid** ( *$\alpha$ -methyl- $\beta$ -acetylpropionic acid*) (THORNE), 1885, A., 1200.
- Acetylbutyryl** and its derivatives (v. PECHMANN and OTTE), 1888, A., 1052; 1889, A., 1138.
- Acetylisobutyryl** (v. PECHMANN and OTTE), 1888, A., 105; 1889, A., 1138.
- Acetylbutyrylmethane** (CLAISEN and EHRHARDT), 1889, A., 851.
- Acetylcamphenylcarboxylic acid** (WINZER), 1890, A., 1152.
- Acetylcaproic acid**. See Acetylhexoic acid.
- Acetylcapronyl** (OTTE and v. PECHMANN), 1889, A., 1138.
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- Acetylcabinol** (*acetol*) (PERKIN and TINGLE), 1889, P., 156; (PERKIN), 1891, T., 786, 790; P., 40.  
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- Acetylcabinyl acetate** (PERKIN), 1891, T., 788.
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- $\psi$ -Acetyl- $\alpha$ -carbopyrrolic acid** and its methylic salt (CIAMICIAN and DENNSTEDT), 1884, A., 1045.
- 3-Acetylcarbostyryl** (FRIEDLÄNDER and GÖHRING), 1883, A., 1149.
- Acetylcarvacrol** (CLAUS and FAHRION), 1889, A., 880.
- Acetyltrichloracetylacrylic acid** (ANSCHÜTZ), 1890, A., 365.

- Acetylchlorhydrate**, action of dipotassium salicylate on (MICHAEL), 1884, A., 439.
- Acetyl-*m*- and *p*-chlorobenzene-*p*-azo-*p*-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.
- Acetyl-*m*- and *p*-chlorobenzenehydrazo-*p*-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.
- Acetyl-*p*-chlorobenzophenones** (DEMUTH and DITTRICH), 1891, A., 314.
- Acetylpentachlorobutyric acid**, trichlor- and dichlorobrom- (ZINCKE and RABINOWITSCH), 1891, A., 691.
- Acetyltrichlorocrotonic acid**, dichlor- (ZINCKE and RABINOWITSCH), 1891, A., 690.
- Acetyltetrachlorocrotonic acid**, di- and tri-chlor- (ZINCKE and FUCHS), 1892, A., 1462.
- Acetylchloroantiglyoxime** (HANTZSCH), 1892, A., 694.
- Acetyltetrachloro-*m*-hydroxybenzoic acid** (ZINCKE and WALBAUM), 1891, A., 710.
- Acetylchloromannose** (FISCHER and HIRSCHBERGER), 1890, A., 226.
- Acetylchlorophenols**, isomeric (DACCOMO), 1892, A., 308.
- Acetyltrichlorophenol** (LAMPERT), 1886, A., 616.
- Acetyltrichlorophenomalic acid**. See Acetyltrichloroacetylacrylic acid.
- Acetyl-*p*-chlorothiophenol** (DACCOMO), 1892, A., 308.
- Acetylcholesterol**, brom- (REINITZER), 1888, A., 1076.
- Acetylcitric acid** and its reduction (EASTERFIELD and SELL), 1892, T., 1005.
- Acetylcitric anhydride**, and the action of aromatic amines on (KLINGEMANN), 1889, A., 768.
- Acetylcodeine** (HESSE), 1884, A., 614.
- Acetylcœrulignol** (PASTROVICH), 1883, A., 1006.
- Acetylcotarnelactone** (ROSER), 1890, A., 529.
- Acetyl-*m*-coumaric acid** (TIEMANN and LUDWIG), 1883, A., 189.
- Acetylcresol** (KLINGEL), 1886, A., 61.
- Acetylcrotonyl** (v. PECHMANN and OTTE), 1888, A., 1052; 1889, A., 1139.
- Acetylcumene** and its derivatives (WIDMAN), 1888, A., 1085, 1086.
- Acetyl- $\psi$ -cumeneazo- and hydrazophenol** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.
- Acetyl- $\psi$ -cumidinesulphonic acid**, nitro- (MAYER), 1887, A., 659.
- Acetylcumylglycollic acid** (*isopropyl-phenylacetylglycollic acid*) (FILET and AMORETTI), 1891, A., 1060.
- Acetylcurcumin** (JACKSON and MENKE), 1885, A., 271.
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- Acetylisocyanic acid** (SCHOLL), 1891, A., 282.
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- $\omega$ -Acetyl- $\omega$ -diethylhexoic acid** and its oxime (KIPPING and PERKIN), 1890, T., 36.
- Acetyldigitogenin** (KILIANI), 1891, A., 576.
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- Acetyldihydroxytetrahydroquinoline** (v. BAeyer and HOMOLKA), 1884, A., 78.
- Acetyldihydroxythionaphthalene** (TASSINARI), 1889, A., 246.
- Acetyldiketo-hexamethylenedicarboxylic acid** (FEIST), 1892, A., 586.
- Acetyldimethoxygentisein** (v. KOSTANECKI and SCHMIDT), 1891, A., 1386.
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- 5:2:4-Acetyldimethylpyrrolidine-3-carboxylic acid** (MAGNANINI), 1889, A., 57.
- Acetyl-2:5-dimethylthiophen** and its derivatives (MESSINGER), 1885, A., 1205.
- Acetyldiosphenol** (SHIMOYAMA), 1888, A., 1205.
- Acetyldiphenyl** (ADAM), 1888, A., 959.
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*p*-**Acetyleneanisole**, bromo- (EIGEL), 1887, A., 1110.  
**Acetylenecarboxylic acids**, synthesis of (FAWORSKY), 1888, A., 1168.  
**Acetylenedicarbamide** (WIDMAN), 1887, A., 34; (FRANCHIMONT and KLOBBIE), 1888, A., 1180.  
**Acetylenedicarboxylic acid** and its dimethyl derivative (v. BANDROWSKI), 1888, A., 313.  
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**Acetylenedicarboxylic acid diiodide** (BRUCK), 1892, A., 431.  
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**Acetylene-grouping**, refractive equivalent of (BRÜHL), 1887, A., 193.  
**Acetylenemercury** and its oxychloride (POLECK and THÜMMEL), 1890, A., 119.  
**Acetylenetetracarboxylic acid**. See Ethanetetracarboxylic acid.  
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**Acetylenic dibromide**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.  
**Acetylenic diiodide**, isomeric varieties of (KEISER), 1890, A., 594; (PATERNO and PERATONER), 1890, A., 1219; 1891, A., 654.  
**Acetylenic hydrocarbons**, isomeric change of, by heating with potash (FAWORSKY), 1888, A., 789.  
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**Acetylenylamidoalizarin** (ROEMER), 1885, A., 1068.  
**Acetyl- $\alpha$ - and - $\beta$ -ethoxynaphthalenes** (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.  
**Acetylenylpyromecanic acid** (MENNELL), 1885, A., 1204.  
**Acetyl- $\beta$ -ethylthiophen** (GERLACH), 1892, A., 830.  
**Acetylisoengenol** (TIEMANN), 1892, A., 46.  
**Acetylloxanthone ethyl ether** (HERZIG), 1891, A., 1349.  
**Acetylflavenol** (BESTHORN and FISCHER), 1883, A., 600.  
**Acetylfluorescin** (HERZIG), 1892, A., 1319.  
**Acetylformoxime**, action of hydroxylamine on (SCHOLL), 1891, A., 287.  
**Acetylformylcamphor** (CLAISEN), 1891, A., 574.  
**Acetylfurfurine** (BAHRMANN), 1883, A., 799.  
**Acetylglutaric acid** (CONRAD and GUTHZEIT), 1886, A., 337.  
**Acetylglutazine** (STOKES and v. PECHMANN), 1887, A., 155.  
**Acetylglycerol**. See Glyceryl acetate.  
**Acetylglyoxylic acid phenylhydrazone**, action of phenylhydrazine on (JAPP and KLINGEMANN), 1888, T., 530.  
**Acetylguvacine** (JAHNS), 1892, A., 740.  
**Acetylheptylmethane** (CLAISEN and EHRHARDT), 1889, A., 851.  
 $\omega$ -**Acetylhexoic acid** (KIPPING and PERKIN), 1889, T., 338; P., 79.  
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**Acetylhomosalicyl-**. See Acetylhydroxytolenyl-.  
**Acetylhydrastine** (SCHMIDT and KERSTEIN), 1890, A., 649.  
**Acetylhydrastineoxime** (FREUND), 1889, A., 908.  
**Acetylhydrindigotin** (LIEBERMANN and DICKHUTH), 1892, A., 480.



- Acetylhydrocotarnineacetic acid (BOWMAN), 1887, A., 1056.
- Acetylhydrojuglone (BERNTSEN and SEMPER), 1885, A., 548.
- Acetylhydroquinine (HESSE), 1888, A., 70.
- Acetylhydroxybenzenesulphone (TASSINARI), 1889, A., 245.
- Acetyl-*m*-hydroxybenzenylamidoxime (CLEMM), 1891, A., 699.
- Acetyl-*p*-hydroxybenzenylamidoxime (KRONE), 1891, A., 700.
- Acetyl-*m*-hydroxybenzonitrile (CLEMM), 1891, A., 699.
- Acetyl-1-hydroxy-1'-ethyltetrahydroquinoline (*acetylklairin*) (KOHN), 1886, T., 507; P., 210.
- Acetylhydroxyhydrazobenzene (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.
- Acetylhydroxypæonol (NAGAI), 1892, A., 846.
- Acetylhydroxypiperidine, *dichlor*- (BALLY), 1888, A., 965.
- p*-Acetylhydroxythiocarbanilide (KALCKHOFF), 1883, A., 1110.
- Acetylhydroxythiophenylcarbimide (KALCKHOFF), 1883, A., 1110.
- Acetyl-*o*-hydroxy-*p*-tolenylamidoxime (*acetyl - p - homosalicenylamidoxime*) (GOLDBECK), 1892, A., 319.
- Acetyl-*o*-hydroxy-*p*-toluenitrile (GOLDBECK), 1892, A., 318.
- Acetyl-*p*-hydroxy-*o*-toluenitrile (PASCHEN), 1892, A., 320.
- $\beta$ -Acetylhydroxy- $\alpha$ -truxillie acid (HOMANS, STELTZNER, and SUKOW), 1891, A., 1496.
- $\gamma$ -Acetyl- $\beta$ -hydroxyisovaleric acid (OBREGIA), 1892, A., 325.
- Acetylindigotin (LIEBERMANN and DICKHUTH), 1892, A., 480.
- Acetylindigo - white (LIEBERMANN), 1888, A., 494.
- 1'-Acetylinole (ZATTI and FERRATINI), 1890, A., 988.
- 3'-Acetylinole (ZATTI), 1889, A., 712.
- Acetyldiodophenol (SCHALL), 1883, A., 1109.
- Acetylisatic acid, chemical constitution of (KOLBE), 1884, A., 78.
- Acetylisatin, chemical constitution of (KOLBE), 1884, A., 78.
- Acetylalactic acid (SIEGFRIED), 1890, A., 128.
- Acetyllevulinic acid and its derivatives (BREDT), 1887, A., 126; 1890, A., 863.
- Acetylsolinsic acid (HAZURA), 1888, A., 816.
- Acetylmalanil (BISCHOFF), 1891, A., 1221.
- Acetylmalic acid (ANSCHÜTZ and BENNERT), 1890, A., 363.
- Acetylmalic- $\alpha$ -dinaphthalide (BISCHOFF), 1891, A., 1220.
- Acetylmalic- $\beta$ -naphthil (BISCHOFF), 1891, A., 1221.
- Acetylmesitylene, action of hydroxylamine hydrochloride on (FEITH and DAVIES), 1892, A., 314.
- Acetylmesitylic oxide (CLAISEN and EHRHARDT), 1889, A., 850.
- Acetyl- $\alpha$ - and  $\beta$ -methoxynaphthalene (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 964.
- Acetylmethyl cyanide, imido- (HOLTZWART), 1889, A., 683.
- 2'-Acetyl-3'-methylindazole (AUWERS and v. MEYENBURG), 1891, A., 1377.
- 1'-Acetyl-3'-methylisindazole (AUWERS and v. MEYENBURG), 1891, A., 1376.
- 1'-Acetyl-2'-methylindole (MAGNANINI), 1888, A., 957.
- 2'-Acetyl-1'-methylindole (MAGNANINI), 1888, A., 957.
- 2'-Acetyl-3'-methylindole (CIAMICIAN and MAGNANINI), 1888, A., 483; (MAGNANINI), 1888, A., 957.
- Acetylmethyloximidoacetic acid (HANTZSCH), 1891, A., 445.
- Acetylmethylpyrroline (CIAMICIAN and SILBER), 1886, A., 719.
- di*brom- (CIAMICIAN and SILBER), 1888, A., 62.
- $\psi$ -Acetylmethylpyrroline. See Methylpyrrol methyl ketone.
- 3-Acetyl-2'-methylquinoline (*p-acetylquinaldine*) (BEREND and THOMAS), 1892, A., 1488.
- 3'-Acetyl-2'-methylquinoline (ELIASBERG and FRIEDLÄNDER), 1892, A., 1107.
- Acetyl-*o*-methyltetrahydrobenzene (KIPPING and PERKIN), 1889, P., 144.
- Acetyl- $\beta$ -methylthiophen (GERLACH), 1892, A., 830.
- brom- (GERLACH), 1892, A., 830.
- Acetylmethyltrimethylene (PERKIN), 1885, T., 852.
- Acetylmethyltrimethylenecarboxylic acid (PERKIN), 1884, A., 1155; 1885, T., 851.
- preparation of (PERKIN and STENHOUSE), 1892, T., 69.
- oxime of (PERKIN and STENHOUSE), 1892, T., 70.
- Acetylnaphthastyril and *di*brom- (EKSTRAND), 1886, A., 715.
- Acetyl- $\alpha$ - and  $\beta$ -naphthenylamidoximes (RICHTER), 1890, A., 62.

- $\alpha$ -Acetylnaphthol** (ERDMANN), 1888, A., 488; 1890, A., 376.
- $\beta$ -Acetylnaphthol**,  $\alpha$ -nitro-, molecular transformation of (BÖTTCHER), 1883, A., 1113.
- $\beta$ -Acetylnaphthylglycollic acid** (SCHWEITZER), 1891, A., 729.
- Acetyl- $\alpha$ -naphthylthiocarbazine** (FREUND), 1892, A., 510.
- Acetylnicotenylamidoxime** (MICHAELIS), 1892, A., 207.
- Acetyl- $m$ -nitrobenzoic anhydride**. See Benzoic acetic anhydride.
- Acetyldinitrocarvacrol** (MAZZARA and PLANCHER), 1892, A., 309.
- Acetylnitroethylic alcohol** (DEMUTH and MEYER), 1890, A., 858.
- Acetyl- $o$ -nitrohydroxyazobenzene** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1261.
- Acetyldinitromethylquinol** (KEHRMANN and BRASCH), 1889, A., 970.
- Acetylnitro-opianic acid** (LIEBERMANN and KLEEMANN), 1887, A., 47.
- Acetyloctylthiophen** (v. SCHWEINITZ), 1886, A., 535.
- Acetylopianic acid** (LIEBERMANN and KLEEMANN), 1887, A., 47.
- Acetyl-pæonol** (NAGAI), 1892, A., 59, 845.
- Acetylpentamethyl- $p$ -leucaniline** (FISCHER and KOERNER), 1884, A., 607.
- Acetylphenanthraquinol** (JAPP and KLINGEMANN), 1890, P., 31.
- $p$ -Acetylphenetidine**. See Phenacetin.
- $p$ -Acetylphenetol** (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 963.
- Acetylphenol**,  $o$ -nitro- (BÖTTCHER), 1883, A., 1113.
- dinitramido-** (SCHIFF), 1886, A., 613.
- 1:2:4-Acetylphenolbisazotoluene** (GOLDSCHMIDT and POLLAK), 1892, A., 976.
- Acetyl- $\alpha$ -phenoldichroin** (BRUNNER and CHUIT), 1888, A., 363.
- Acetylphenoloxychroin** (BRUNNER and CHUIT), 1888, A., 363.
- $\alpha\alpha'$ -Acetylphenoxyethane** (VLADESCO), 1892, A., 811.
- Acetylphenylcarbazine** (FREUND and GOLDSMITH), 1888, A., 1187.
- Acetylphenyldichlorohydroxypyridone** (ZINCKE), 1890, A., 965.
- Acetylphenyl- $p$ -coumaric acid**, synthesis of (OGLIALORO-TODARO), 1884, A., 176.
- $\beta$ -Acetyl- $\gamma$ -phenylisocrotonic acid** (ERDMANN), 1890, A., 375.
- Acetylphenylegonine** (EINHORN and KLEIN), 1889, A., 283.
- Acetylphenyl- $\psi$ -hydantoin** (PINNER and SPILKER), 1889, A., 707.
- Acetylphenylhydrouracil** (HOOGWERFF and VAN DORP), 1891, A., 197.
- 1':3'-Acetylphenylisindazole** (AUWERS and v. MEYENBURG), 1891, A., 1378.
- 2-Acetyl-1-phenyl-5-methylhydroisopyrazolone** (LEDERER), 1892, A., 635.
- 3'-Acetyl-2'-phenyl-1'-methylindole** (KOHLEAUSCH), 1890, A., 24.
- Acetylphenylmethyltetrahydroquinazoline** (PAAL and KRECKE), 1892, A., 81.
- Acetyl-1-phenylpyrazole** and its oxime and phenylhydrazone (BALBIANO), 1890, A., 798.
- Acetylphenylsuccinic acid**, phenylhydrazine derivatives of (WELTNER), 1885, A., 793.
- Acetylphenylthiocarbazine** (FREUND and GOLDSMITH), 1888, A., 1188.
- Acetylphenyltropeine** (LADENBURG), 1883, A., 671.
- Acetylpicamar** (NIEDERIST), 1883, A., 1005.
- Acetylpipeidine** (LELLMANN and SCHWADERER), 1889, A., 903.
- Acetylpipeidine**, trichloro- (BALLY), 1888, A., 965.
- Acetylpipeone** (CIAMICIAN and SILBER), 1892, A., 873.
- $\beta$ -Acetylpropionic acid**. See Levulinic acid.
- Acetylpropionyl** and its derivatives (v. PECHMANN), 1888, A., 812.
- preparation of (v. PECHMANN), 1892, A., 426.
- Acetylpropionylhydrazone** (OTTE and v. PECHMANN), 1889, A., 1137.
- Acetylpropionylhydrazoximes** (OTTE and v. PECHMANN), 1889, A., 1138.
- Acetylpropionylmethane** (CLAISEN and EHRHARDT), 1889, A., 851.
- Acetylpropionyl- $\alpha\beta$ -phenylhydrazacetoxime** (BALTZER and v. PECHMANN), 1891, A., 1116.
- $p$ -Acetylpropylbenzene** and its derivatives (WIDMAN), 1888, A., 1085, 1086.
- Acetylpropylic acetate** (LIPP), 1889, A., 844.
- Acetylpropylic alcohol** (FREER and PERKIN), 1887, T., 829, 834; P., 95; A., 33; (COLMAN and PERKIN), 1889, T., 352, 357; P., 89; (LIPP), 1889, A., 843.
- constitution of (COLMAN and PERKIN), 1888, T., 189.
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- Acetylpropylic benzoate** (LIPP), 1889, A., 844.

- Acetylpropylic bromide** (COLMAN and PERKIN), 1889, T., 357.
- Acetylisopropylic alcohol** (FITTIG and ERLBACH), 1888, A., 1053, 1269.
- Acetylisopropylpyrroline** and its derivatives (DENNSTEDT and ZIMMERMANN), 1887, A., 598.
- Acetylprotocatechone** (NEITZEL), 1892, A., 61.
- $\alpha$ -Acetylpyrroline** (CIAMICIAN and DENNSTEDT), 1884, A., 289; (CIAMICIAN and SILBER), 1885, A., 808.  
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- Acetylpyrroline, tri- and penta-brom-** (CIAMICIAN and SILBER), 1885, A., 1078.  
*tetraiod-* (CIAMICIAN and DENNSTEDT), 1883, A., 350; (CIAMICIAN and SILBER), 1885, A., 1078.
- Acetylpyrrolines, dibromonitr-** [m.p. 206°, 175°] (CIAMICIAN and SILBER), 1887, A., 597; 1888, A., 61.
- Acetylpyrrolinecarboxylic acid** (CIAMICIAN and DENNSTEDT), 1884, A., 290.
- $\gamma$ -Acetylpyrroline.** See Methyl pyrrol ketone.
- Acetylpyruvaldephenylhydrazone** (JAPP and KLINGEMANN), 1888, T., 526.
- Acetylpyruvic acid** (CLAISEN and STYLOS), 1887, A., 918.
- Acetylquinol, thio-** (LEUCKART), 1890, A., 604.
- Acetylquinoline, bromamido-** (LA COSTE), 1883, A., 91.
- Acetylquinovite** (LIEBERMANN), 1884, A., 1191.
- Acetylscopoletin** (TAKAHASHI), 1889, A., 255.
- Acetylstyrylhydantoin** (PINNER and SPILKER), 1889, A., 705.
- Acetyltetrahydroquinoline** (HOFFMANN and KOENIGS), 1883, A., 1144.
- Acetyltetramethylenecarboxylic acid** (PERKIN), 1883, A., 1083.
- Acetyltetramethyl-*p*-leucaniline** and *-p*-rosaniline (FISCHER and GERMAN), 1883, A., 1098.
- Acetyltetraphenylpyrroline** (FEHLIN), 1889, A., 623.
- Acetylthallin** (SKRAUP), 1886, A., 80.
- Acetylthiocarbamidophenol** (KALCKHOFF), 1883, A., 1110.
- Acetyl- $\beta$ -thioethylcrotonic anhydride** (AUTENRIETH), 1888, A., 251.
- Acetyl- $\alpha\alpha$ -dithionaphthol** (GROSJEAN), 1890, A., 1306.
- Acetylthiophen.** See Acetothienone.
- m*-Acetyltoluene** (ESSNER and GOSSIN), 1885, A., 252.  
*o*-amido-, and some of its derivatives (KLINGEL), 1884, A., 1343; 1886, A., 60.
- Acetyl-*p*-tolueneazo-*p*-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.
- Acetyl-*p*-tolueneazo- and hydrazophenol** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.
- Acetyltricarballic anhydride** (DÄUMICHEN), 1889, A., 238.
- Acetyltrimethylene** (PERKIN), 1884, A., 1155; 1885, T., 834; (LIPP), 1889, A., 845.  
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- Acetyltrimethylenecarboxylic acid** (PERKIN), 1884, A., 64; 1885, T., 831; (MARSHALL and PERKIN), 1890, P., 137.  
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- Acetyltrimethylenedicarboxylic acid** (FREER and PERKIN), 1887, T., 847.
- Acetyltriphenylmethylaniline** (v. HEMILIAN and SILBERSTEIN), 1884, A., 1033.
- Acetylundecylmelitriose** (SCHEIBLER and MITTELMEIER), 1890, A., 1085.
- Acetylurethane**, action of phenylhydrazine on (ANDREOCCHI), 1890, A., 889.
- Acetylvaleric acid** (PERKIN), 1889, P., 142; 1890, T., 290.  
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- Acetylisovaleryl** (v. PECHMANN and OTTE), 1888, A., 1052; 1889, A., 1138.
- 1:2:4-Acetyl-*o*-xylene**, production of, from camphor (ARMSTRONG and KIPPING), 1892, P., 54.
- Acetylxylenylamidoxime** (OPPENHEIMER), 1890, A., 50.



*Acherontia atropos*, blood of (GRIF-FITHS), 1892, A., 648.

**Acid** of the series  $C_nH_{2n-4}O_6$  (BAUER), 1883, A., 970.

**Acid amides** from the decomposition of albumin (SCHULZE), 1885, A., 581.

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**Acid anhydrides**, preparation of (LACHOWICZ), 1884, A., 990; (HENTSCHEL), 1884, A., 991.

"**Acid brown**," spectrum of (HARTLEY), 1887, T., 198.

**Acid chlorides**, formation of, by the action of sulphonic chloride (CARARA), 1890, A., 1288.

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"**Acid green**," preparation of (MÜHL-HÄUSER), 1887, A., 579.

**Acid secretion**, precise relations of (DRESER), 1885, A., 923.

"**Acid yellow**" (EGER), 1889, A., 709.

**Acidamines** (ENGEL), 1884, A., 725.

**Acidammonium bases** (GRIESS), 1885, A., 1220.

**Acidimetric solutions**, standardising (HART and CROASDALE), 1891, A., 959.

**Acidimetry**, potassium iodate as original standard for (GRÖGER), 1891, A., 614.

**Acidity** of drawing papers (HARTLEY), 1892, P., 19; (BEADLE), 1892, P., 34.

**Acidoximes** (PINNER), 1884, A., 739.

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from oak-bark (MUSSET), 1884, A., 1439.

from oils (HAZURA), 1887, A., 359, 913; 1888, A., 816; (HAZURA and FRIEDREICH), 1887, A., 798; (HAZURA and GRÜSSNER), 1888, A., 1270; (NOERDLINGER), 1889, A., 799.

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**Acids** from earth-nut oil, oxidation of (HAZURA and GRÜSSNER), 1889, A., 1058.

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**Acids, aromatic**, synthesis of (GATTERMAN and SCHMIDT), 1887, A., 569.

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**Conhydrine** (*oxyconiine*) and its derivatives (v. HOFMANN), 1885, A., 401, 563.

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α-**Coniceine** and its derivatives (v. HOFMANN), 1885, A., 401.

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β-**Coniceine** and its derivatives (v. HOFMANN), 1885, A., 401.

γ-**Coniceine** and its derivatives (v. HOFMANN), 1885, A., 562; (LELLMANN and MÜLLER), 1890, A., 802.

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**Cotarnine** and its derivatives, constitution of (ROSER), 1889, A., 418; 1890, A., 530.

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**Cryptopine** and its derivatives (KAUDER), 1887, A., 1122; (BROWN and PERKIN), 1891, P., 166.

**Cupreine** (HESSE), 1885, A., 276; 1886, A., 83; (PAUL and COWNLEY), 1885, A., 564, 997; (OUDEMANS), 1889, A., 1018; (GRIMAUX and ARNAUD), 1892, A., 1253.

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**Dehydrocinchonine**, hydrobromide (COMSTOCK and KOENIGS), 1887, A., 1125.

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**Delphine**, reaction of (FERREIRA DA SILVA), 1891, A., 1562.

**Delphinine**, composition and properties of (CHARALAMPI), 1891, A., 843.

**Diacetylupinine** (BAUMERT), 1884, A., 1387.

**Diacetylmorphine** and its derivatives (HESSE), 1884, A., 613.

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**Diapocinchonine** (JUNGFLEISCH and LÉGER), 1892, A., 1253.

**Dihydrocinchonine** (COMSTOCK and KOENIGS), 1884, A., 1384.

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**Dimethoxyconiine** (v. HOFMANN), 1885, A., 563.

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- $\psi$ -Ephedrine and its derivatives (LADENBURG and OELSCHLÄGEL), 1889, A., 1020.  
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- Ergotinine (TANRET), 1885, A., 84; (BOMBELON), 1888, A., 970.
- Eserine, reaction for (FERREIRA DA SILVA), 1891, A., 1562.
- Ethylbenzoylcogonine (NOVY), 1887, A., 1126.
- Ethylbenzoyl-*d*-ecgonine (EINHORN and MARQUARDT), 1890, A., 913.
- Ethylapocinchonine (COMSTOCK and KOENIGS), 1885, A., 1249.  
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- Ethyleinchonamine (HESSE), 1885, A., 66.
- Ethyl-*d*-cocaine aurochloride (EINHORN and MARQUARDT), 1890, A., 913.
- Ethylenedimorphine (*dicodethine*) (GRIMAU), 1883, A., 359.
- Ethylhydrastamide (FREUND and HEIM), 1891, A., 92.
- Ethylhydrastine (FREUND and ROSENBERG), 1890, A., 533.
- Ethylhydrastine (POWER), 1885, A., 675; (KERSTEIN), 1890, A., 74; (SCHMIDT and KERSTEIN), 1890, A., 649.  
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- Ethylhydroberberine (GAZE), 1890, A., 1012.  
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- Fagine (HABERMANN), 1885, A., 676.
- Fumarine (REICHWALD), 1890, A., 272.
- Galipeine and its salts (KÖRNER and BÖHRINGER), 1884, A., 341.
- Galipidine and galipine (BECKURTS and NEHRING), 1892, A., 642, 643.
- Gelseminine (THOMPSON), 1887, A., 981.
- Gerontine (GRANDIS), 1891, A., 588.
- Glaucine (BATTANDIER), 1892, A., 893.
- Harmaline, harmalol and harmine (FISCHER and TÄUBER), 1885, A., 820; (FISCHER), 1889, A., 730.
- apo*Harmine (FISCHER), 1889, A., 731.
- Hexahydronicotine (BLAU), 1891, A., 583; 1892, A., 1365.
- $\psi$ -Homoatropine (LIEBERMANN and LIMPACH), 1892, A., 891.
- Homochelidonine,  $\alpha$ - and  $\beta$ - (SELLE), 1891, A., 229.

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- $\gamma$ -Homochelidonine (KÖNIG), 1891, A., 844.
- Homopocinchonine and its derivatives (COMSTOCK and KOENIGS), 1888, A., 72.
- $\beta$ -Homocinchonidine (HESSE), 1890, A., 1166.
- Homonapelline (DUNSTAN and UMEY), 1892, T., 393.
- Homoquinine (PAUL and COWNLEY), 1885, A., 563, 997; (HESSE), 1884, A., 1384; 1886, A., 83; 1890, A., 1166.  
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- Hopeine (LADENBURG), 1886, A., 269, 563; (WILLIAMSON), 1886, A., 724.
- Hydrastaldehyde (FREUND), 1889, A., 1221.
- Hydrastine, constitution of (FREUND and ROSENBERG), 1890, A., 534.
- Hydrastine (POWER), 1885, A., 675; (LYONS), 1886, A., 633; (EIJKMAN), 1887, A., 505; (FREUND and WILL), 1887, A., 174, 383; (FREUND), 1889, A., 627, 908, 1221; 1890, A., 534; (FREUND and LACHMANN), 1889, A., 1220; (KERSTEIN), 1890, A., 74; (FREUND and ROSENBERG), 1890, A., 532; (HEIM), 1890, A., 1333; (FREUND and HEIM), 1891, A., 92; (FREUND and PHILIPS), 1891, A., 93; (FREUND and DORMEYER), 1891, A., 1518; 1892, A., 223.  
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- derivatives (POWER), 1885, A., 675; (FREUND and WILL), 1887, A., 1057; (SCHMIDT and WILHELM), 1888, A., 1212; (SCHMIDT and KERSTEIN), 1890, A., 648.
- alkyl derivatives of (SCHMIDT), 1890, A., 1167; (FREUND and HEIM), 1891, A., 92; (FREUND and PHILIPS), 1891, A., 93.
- allylic iodide (FREUND and PHILIPS), 1891, A., 93.
- ferrocyanide (BECKURTS), 1890, A., 1318.
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- methiodide (FREUND and ROSENBERG), 1890, A., 532; (SCHMIDT), 1890, A., 1167.
- reactions of (V. HIRSCHHAUSEN), 1885, A., 606; (LYONS), 1886, A., 633; (VITALI), 1892, A., 755.



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- Hydrastine-ethylammonium hydr-oxide** (WILHELM), 1888, A., 1212.
- Hydrastine-methylammonium hydr-oxide** (SCHMIDT), 1890, A., 1167.
- Hydrastinine** (FREUND and WILL), 1887, A., 383.  
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- Hydrastophthalimidine** (FREUND and PHILIPS), 1891, A., 94.
- Hydroberberine** (SCHMIDT), 1884, A., 339; (BERNHEIMER), 1884, A., 340; (GAZE), 1890, A., 1011; 1891, A., 332; (LINK), 1892, A., 1498.  
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- Hydrocinchonidine** and its salts (HESSE), 1883, A., 97.
- Hydrocotarnine**, physiological action of (STOCKMAN and DOTY), 1891, A., 762.
- Hydrocupreine** (HESSE), 1888, A., 71.
- Hydrohydrastine** (POWER), 1885, A., 675.
- Hydrohydrastinine** (FREUND and WILL), 1887, A., 384.  
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- Hydronicotine** (ETARD), 1884, A., 464.
- Hydroquinicine** (HESSE), 1888, A., 70.
- Hydroquinidine** and its sulphate (HESSE), 1883, A., 602.
- Hydroquinine** and its derivatives (HESSE), 1888, A., 69.  
methhydroxide (HESSE), 1888, A., 70.
- Hydroquininesulphonic acid** (HESSE), 1888, A., 71.
- Hydrotropidine** and its salts (LADENBURG), 1883, A., 1155.
- Hydrotropine iodide** (LADENBURG), 1883, A., 672.
- Hydroxybenzotropeine** and its salts (LADENBURG), 1883, A., 671.

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- $\alpha$ -Hydroxycinchonine** and its derivatives (JUNGFLEISCH and LÉGER), 1888, A., 380, 507; 1889, A., 906.
- $\beta$ -Hydroxycinchonine** (JUNGFLEISCH and LÉGER), 1888, A., 380, 507.
- Hydroxycyanocoinine** and its derivatives (v. MEYER), 1883, A., 352, 354; (RIESS), 1885, A., 235.
- Hydroxyhydrastinine** and its derivatives (FREUND and WILL), 1887, A., 1057.
- Hydroxymethylhydrohydrastinine methiodide**, bromo- (FREUND and DORMEYER), 1891, A., 1520.
- Hygrine** (BIGNON), 1886, A., 388; (STOCKMAN), 1888, A., 508; (LIEBERMANN), 1889, A., 732; (LIEBERMANN and KÜHLING), 1891, A., 586.  
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- Hymenodictyonine**, the bitter principle of *Hymenodictyon excelsum* (NAYLOR), 1883, A., 1141; 1885, A., 565.
- Hyoscine** (LADENBURG), 1884, A., 761; 1892, A., 1366; (SCHMIDT), 1892, A., 1255, 1498; (HESSE), 1892, A., 1498.  
hydrochloride, physiological action of (GLEXY and RONDEAU), 1888, A., 182; (PAWLOFF), 1890, A., 1019.
- Hyoscyamine**, existence of, in the lettuce (DYMOND), 1891, P., 165; 1892, T., 90.  
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- Hypocaffeine** and its salts (FISCHER), 1883, A., 356.
- Imperatorine** (*peuceplanine*), reactions of (BROCINER), 1890, A., 310.
- Imperialine** and its derivatives (FRAGNER), 1889, A., 284; (JAS- SOY), 1890, A., 1154.
- Jaboridine** (HARNACK), 1886, A., 85.
- Jaborine** (HARDY and CALMELS), 1886, A., 815.
- Japaconitine** (MANDELIN), 1885, A., 911.
- Jervine** and  $\psi$ -jervine (PEHKSCHEN), 1891, A., 88.
- Laserpitine** and its derivatives (KÜLZ), 1884, A., 182.
- Laudanine** (HESSE), 1884, A., 616.

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- Laurotetanine**, the active principle of certain Lauraceae (GRESHOFF), 1891, A., 337.
- Lobeline** (PASCHKIS and SMITA), 1890, A., 1169.
- Lupanine** (HAGEN), 1886, A., 163; (SIEBERT), 1892, A., 223.
- Lupinidine** from *Lupinus luteus*, and its derivatives (BAUMERT), 1885, A., 177.  
from white lupins (CAMPANI and GRIMALDI), 1891, A., 1521.  
behaviour of, with ethylic iodide (BAUMERT), 1885, A., 676.
- Lupinindine** (BAUMERT), 1884, A., 1387.
- Lupinine**, action of acetic chloride and anhydride on (BAUMERT), 1884, A., 1387.  
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- Lycaconine, lycaconitine, and lycocotinine** (DRAGENDORFF and SPOHN), 1885, A., 403.
- Macleyine** (EIJKMAN), 1885, A., 404.
- Mandelic  $\psi$ -tropeine ( $\psi$ -homatropine)** (LIEBERMANN and LIMPACH), 1892, A., 891.
- Mandragorine** (AHRENS), 1889, A., 1074, 1222.
- Mannitine** (SCICHLONE and DENARO), 1883, A., 50.
- Meconarceine** (MERCK), 1889, A., 906.
- Meconine** (WEGSCHEIDER), 1883, A., 996.  
action of potassium cyanide on (BOWMAN), 1887, A., 586.
- $\psi$ -Meconine** and its derivatives (SALOMON), 1887, A., 585; (PERKIN), 1890, T., 1072.
- Methoxyhydrocotarnine methiodide** (ROSER), 1890, A., 531.
- Methoxyquinine methiodide** (GRIMAUX), 1892, A., 1363.
- Methylanhydroecgonine methiodide** (EINHORN), 1889, A., 170.
- Methylarecaidine** (JAHNS), 1892, A., 739.
- Methylbrucine**, ammonium base obtained from (HANSEN), 1885, A., 819.
- Methylapocinchenine** and its hydrochloride (COMSTOCK and KOENIGS), 1885, A., 1248.
- Methyleinchonamine** (HESSE), 1885, A., 66.

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- Methylcocaine** (LIEBERMANN and GIESEL), 1890, A., 647, 803; (EINHORN and MARQUARDT), 1890, A., 913; (GIESEL), 1890, A., 1011.
- Methylcodeine** and its derivatives (GRIMAUX), 1883, A., 359; (HESSE), 1884, A., 614.
- Methylcolchicine** (JOHANNY and ZIESEL), 1889, A., 282.
- Methylconiine** (PASSON), 1891, A., 1118.
- Methylcytisine** (v. BUCHKA and MAGALHAES), 1891, A., 750.
- Methylcoxystrychnine** (TAFEL), 1892, A., 1014.
- Methylecgonine** (LIEBERMANN and GIESEL), 1890, A., 647; (EINHORN and MARQUARDT), 1890, A., 913.
- Methylhydrastallylamide** (FREUND and HEIM), 1891, A., 93.
- Methylhydrastamide** (FREUND and HEIM), 1891, A., 92.
- Methylhydrastisoamylamide** (FREUND and HEIM), 1891, A., 93.
- Methylhydrasteine** (FREUND and ROSENBERG), 1890, A., 533.
- Methylhydrastethylamide** (FREUND and HEIM), 1891, A., 93.
- Methylhydrastimide** and its methiodide (FREUND and HEIM), 1891, A., 92.
- Methylhydrastine** and its methiodide (FREUND and ROSENBERG), 1890, A., 532; (SCHMIDT), 1890, A., 1167.  
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- Methylhydrastomethylamide** (FREUND and HEIM), 1891, A., 93.
- Methylhydroberberine** (GIACOSA and SOAVE), 1890, A., 920; (GAZE), 1890, A., 1012.
- Methylhydrohydrastinine** and its derivatives (FREUND and DORMEYER), 1891, A., 1519.  
bromo- (FREUND and DORMEYER), 1892, A., 223.
- Methylmorphomethine**. See Codomethine under Alkaloids.
- Methylnarceine** and its salts (CLAUS and RITZEFELD), 1885, A., 997.
- Methylquinidine** (CLAUS), 1892, A., 1250.
- Methylquinine**, preparation of (LIPPMANN), 1892, A., 222.
- Methylstrychnine** (TAFEL), 1890, A., 1447; 1891, A., 1263.
- iso***Methylstrychnine** (TAFEL), 1891, A., 1264.

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**$\alpha$ -Methyltropidine** and its derivatives (ROTH), 1884, A., 761; (MERLING), 1892, A., 358.

**$\beta$ -Methyltropidine** (MERLING), 1892, A., 359.

**Methyltropine**, decomposition of, by potash (LADENBURG), 1883, A., 672.

**Moradeine** (ARATA and CANZONERI), 1890, A., 405.

**Morphine** (v. GERICHTEN and SCHRÖTER), 1883, A., 221; (HESSE), 1884, A., 613; (PLUGGE), 1887, A., 280; (KNORR), 1889, A., 905.

from *Papaver Rhoeas* (HESSE), 1890, A., 646.

from *Escholtzia* (*Eschscholzia*) *californica* (BAUDET and ADRIAN), 1889, A., 644.

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ferrocyanide (BECKURTS), 1890, A., 1318.

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hydrogen diaminechromium thiocyanate (CHRISTENSEN), 1892, A., 1001.

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**Morphine**, physiological action of (STOCKMAN and DOTT), 1890, A., 1178.

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estimation of, in opium (v. PERRER), 1884, A., 1217; (FLÜCKIGER), 1885, A., 1165; 1890, A., 94; (VENTURINI), 1886, A., 1086; (KREMEL; WILLIAMS), 1888, A., 635; (TESCHEMACHER and SMITH), 1888, A., 635, 1137; (LOOFF), 1890, A., 1349; (DIETERICH), 1891, A., 511.

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**Morrenine** (ARATA and GELZER), 1891, A., 1122.

**Morrhaine** (GAUTIER and MOURGUES), 1888, A., 1315; 1889, A., 63.

**Myoctonine** (DRAGENDORFF and SPOHN), 1885, A., 403; (DRAGENDORFF and SALOMONOWITSCH), 1887, A., 858.

**Nandinine** (EIJKMAN), 1885, A., 565.

**Napelline** (DUNSTAN and UMNEY), 1892, T., 391; P., 43.

**Narceine** (PLUGGE), 1887, A., 280; (CLAUS and MEIXNER), 1888, A., 611.

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- Narceine**, reaction of (PLUGGE), 1887, A., 870; (FERREIRA DA SILVA), 1891, A., 1562.
- Narcotine** (PLUGGE), 1887, A., 280; (ROSER), 1888, A., 1115, 1316; 1889, A., 417; 1890, A., 528.
- constitution of (ROSER), 1890, A., 531.
- oxidation of (SCHMIDT and KERSTEIN), 1890, A., 648.
- ferrocyanide (BECKURTS), 1890, A., 1318.
- physiological action of (STOCKMAN and DOTT), 1891, A., 762.
- reaction of (FERREIRA DA SILVA), 1891, A., 1562; (VITALI), 1892, A., 756.
- bromine as a test for (EILOART), 1885, A., 96.
- Nicotine** (PINNER and WOLFFENSTEIN), 1891, A., 945; 1892, A., 1010, 1497.
- constitution of (BLAU), 1891, A., 583.
- specific rotation of (PŘIBRAM), 1887, A., 756.
- specific rotatory and refractive powers of (KANONNIKOFF), 1889, A., 453.
- specific rotatory power of salts of (SCHWEBEL), 1883, A., 354.
- thermochemistry of (COLSON), 1890, A., 101.
- action of benzoic chloride on (PINNER and WOLFFENSTEIN), 1891, A., 945.
- action of bromine on (PINNER), 1892, A., 1497.
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- o*-**Amidobenzylacetomethylamide** (GABRIEL and JANSEN), 1892, A., 218.
- m*-**Amidobenzylacetone** (V. MILLER and RÖHDE), 1890, A., 1138.
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- m*-Amidobenzylidene-2'-methylquinoline [m.p. 158°] (WARTANIAN), 1891, A., 330.
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- o*-Amidobenzylidenerrhodanic acid (BONDZYŃSKI), 1887, A., 1109.
- p*-Amidobenzylphthalimidine (HAFNER), 1889, A., 982; 1890, A., 487.
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- Amidocarbonylphenyloxamic acid (GRIESS), 1885, A., 1225; 1888, A., 827.
- di*Amidocarvacrol (MAZZARA), 1891, A., 47.
- Amidochrysene (ABEGG), 1890, A., 789; (BAMBERGER and BURGDORF), 1890, A., 902, 1313.
- Amidochryso-quinol and quinone, salts of (ABEGG), 1891, A., 731.
- $\alpha$ -Amidocinnamic acid (PLÖCHL), 1884, A., 1349.
- derivatives of (ROTHSCHILD), 1890, A., 1123; 1891, A., 198.
- Amidocinnamic acids, nitration of (FRIEDLÄNDER and LAZARUS), 1885, A., 1138.
- carbamide derivatives of (ROTHSCHILD), 1890, A., 1123; 1891, A., 198.
- $\beta$ -Amidocinnamionitrile (HOLTZWART), 1889, A., 683.
- Amidochloro-. See Chloramido-.
- Amidocemenic acid, action of phosphorus pentachloride on (PELLMANN), 1884, A., 840.
- Amido-compounds in the animal system (BAHLMANN), 1887, A., 512.
- action of dilute nitric acid on (NORTON and LIVERMORE), 1887, A., 1038.
- action of nitrous acid on (KLOBBIE), 1891, A., 292.
- action of phenylic isocyanate on (KÜHN), 1885, A., 260, 979.
- formation of haloid substitution derivatives of, by the reduction of nitro-derivatives of hydrocarbons (KOCK), 1887, A., 810.
- formation of thiocyanates from (GATTERMANN and HAUSKNECHT), 1890, A., 749.
- Amido-compounds, aromatic, action of silicon tetrachloride on (HARDEN), 1886, P., 251; 1887, T., 40.
- Amidocoumarin (TAEGER), 1887, A., 939; 1891, A., 918.
- Amidocresols. See Cresol.
- $\beta$ -Amidocrotonanilide (KNORR), 1892, A., 708; (LEDERER), 1892, A., 965.
- $\beta$ -Amidocrotonitrile (HOLTZWART), 1889, A., 683.
- Amidocumene. See Cumidine.
- p*-*di*Amidocumene (KEHRMANN and MESSINGER), 1891, A., 298.
- Amido- $\psi$ -cumenol and the action of acetic anhydride on (LIEBERMANN and V. KOSTANECKI), 1884, A., 1147.
- o*-Amidocuminic acid (WIDMAN), 1886, A., 466.
- di*Amidocuminic acid and its hydrochloride (LIPPMANN), 1883, A., 194.
- di*Amido- $\psi$ -cuminic acid (NEF), 1888, T., 433.
- Amidocumylacrylic acids, *o*- and *m*-, and their salts (WIDMAN), 1886, A., 467.
- Amido- $\psi$ -cumylenethenylamidine (AUWERS), 1886, A., 144.
- m*-Amidocumylpropionic acid (WIDMAN), 1886, A., 467.
- m*-Amidocyanobenzoic acid (TRAUBE), 1883, A., 192.
- Amidodicyanobenzoyl, derivatives of (GRIESS), 1885, A., 1225.
- di*Amidodicyanocarboxylic acid. See Ammelide.
- Amido-*p*-cyanophenylacetic acid (TRAUBE), 1883, A., 193.
- Amidocyanophenylglyoxylic acid (GRIESS), 1885, A., 1226.
- p*-*di*Amido-*p*-cymene hydrochloride (LIEBERMANN and V. ILINSKI), 1886, A., 240.
- Amidocymenesulphonic acid. See Cymidinesulphonic acid.
- p*-Amidodeoxybenzoinoxime (NEY), 1888, A., 1197.



- di*Amidodicrosol, action of nascent nitrous acid on (DENINGER), 1890, A., 38.
- Amidodicyanic acid (WUNDERLICH), 1886, A., 435.
- di*Amido-1:4-diethoxybenzene. See Diethoxyphenylenediamine.
- Amidodiethoxyresorcinol (WILL and PUKALL), 1887, A., 661.
- p*-Amidodiethylaniline. See Diethylphenylenediamine.
- $\beta$ -Amidodiethylanilinethiosulphonic acid (BERNTHSEN), 1889, A., 776.
- di*Amidodiethylic sulphoxide, picrate of (CROSS and BEVAN), 1892, A., 130.
- o*-Amidodiethylresorcinol hydrochloride (PUKALL), 1887, A., 662.
- p*-Amidodiethyl-*o*-toluidine. See Methyl-ethylphenylenediamine.
- Amidodihydroindoxyl, derivatives of (BURMEISTER and MICHAELIS), 1891, A., 1068.
- Amidodihydroxynaphthalene. See Dihydroxynaphthylamine.
- 4-Amido-2:6-dihydroxypyridine. See Glutazine.
- di*Amidodihydroxyquinone (NIETZKI and SCHMIDT), 1888, A., 943.
- 4-Amido-1:3-dimethoxybenzene and its derivatives (BECHHOLD), 1889, A., 1155.
- Amidodimethylaniline. See Dimethylphenylenediamine.
- di*Amidodimethylcarbazole (TÄUBER and LOEWENHERZ), 1891, A., 834.
- Amidodimethylcyanidine (TSCHERVEN-IWANOFF), 1892, A., 1291.
- 4-Amido-2:6-dimethyl-*m*-diazine (SCHWARZE), 1890, A., 1159.
- m*-Amido- $\beta$ -dimethylindene (v. MILLER and ROHDE), 1890, A., 1138.
- Amido-1:3-dimethylquinoline (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- Amido-1:4-dimethylquinoline (MARCKWALD), 1890, A., 1004.
- Amidodimethyl- $\alpha$ -resorcylic acid (MEYER), 1888, A., 148.
- di*Amidodimethylstilbene sulphide (ANSCHÜTZ and SCHULTZ), 1889, A., 602.
- di*Amidodinaphthyl and its derivatives (NIETZKI and GOLL), 1886, A., 245.
- di*Amidodinaphthyl derivatives (JULIUS), 1887, A., 56.
- tetra*Amidoisodinaphthyl (STAUB and SMITH), 1885, T., 106.
- 1:3'-*di*Amidodinaphthylic disulphide (EKBOM), 1891, A., 573.
- 1:4'-*di*Amidodinaphthylic disulphide (EKBOM), 1890, A., 994.
- 3:3'-*di*Amido- and *tetra*-amido-4:4'-diphenol (KUNZE), 1889, A., 262.
- di*Amido-*o*-diphenyl [m.p. 81°] (TÄUBER), 1891, A., 570.
- di*Amidodiphenyl [m.p. 125°] (BERNTHSEN), 1886, A., 471.
- m-m*-*di*Amidodiphenyl [m.p. 257°] (BRUNNER and WITT), 1887, A., 673.
- o-p*-*di*Amidodiphenyl [m.p. 45°]. See *iso*Benzidine.
- p-p*-*di*Amidodiphenyl [m.p. 122°]. See Benzidine.
- tetra*Amidodiphenyl. See *di*Amidobenzidine.
- o*-Amidodiphenylamine. See Phenylphenylenediamine.
- 2:4-*di*Amidodiphenylamine (KEHRMANN and MESSINGER), 1892, A., 1109.
- tri*Amidodiphenylamine (NIETZKI and ERNST), 1890, A., 1114.
- m*-Amidodiphenylcarbamide (LEUCKART), 1890, A., 760.
- $\alpha$ -*di*Amidodiphenylcarbinol (WICHELHAUS), 1889, A., 781.
- $\beta$ -*di*Amidodiphenylcarbinol and its compounds (STAEDTEL), 1883, A., 991.
- 4-Amido-2:6-diphenyl-*m*-diazine, formation of (SCHWARZE), 1890, A., 1159.
- Amidodiphenyldisulphonic acid (LIMPRICHT), 1891, A., 930.
- di*Amidodiphenylene ketone oxide and its hydrochloride (PERKIN), 1883, T., 191.
- di*Amidodiphenyleneazone (TÄUBER), 1892, A., 184.
- Amidodiphenylene-*m*-phenylenediamine (FISCHER and HEPP), 1890, A., 614.
- di*Amidodiphenylenic oxide (GALEWSKY), 1891, A., 1234.
- m*-Amidodiphenylmethane (BECKER), 1883, A., 202, 203.
- p*-Amidodiphenylmethane (BASLER), 1884, A., 310.
- p*-Amidodiphenylmethane derivatives (MANNS), 1889, A., 261.
- p*-*di*Amidodiphenylmethane and its nitro-derivatives (GRAM), 1892, A., 618.
- tetra*Amidodiphenylmethane and its compounds (STAEDTEL), 1883, A., 991.
- 4-Amido-2:6-diphenyl-5-methyl-*m*-diazine (v. MEYER), 1889, A., 578; 1890, A., 68; (SCHWARZE), 1890, A., 1159.
- p*-Amidodiphenylmethylpyrazolecarb-oxylic acid (KNORR and JÜDICKE), 1885, A., 1248.

- o*-Amidodiphenylmethylpyrazolecarb-  
oxylic anhydride (KNORR and JÖ-  
DICKE), 1885, A., 1248.
- di*Amidodiphenylphosphinic acid (DÖR-  
KEN), 1888, A., 834.
- p-di*Amidodiphenylpiperazine, forma-  
tion of colouring matters from (LELL-  
MANN and SCHLEICH), 1889, A., 904.
- Amidodiphenylquinoxaline (NIETZKI  
and MÜLLER), 1889, A., 605.
- Amidodiphenylsulphamic acid (SPIE-  
GEL), 1885, A., 987.
- di*Amidodiphenylsulphone and its deri-  
vatives (LAUTH), 1892, A., 1093.
- p*-Amidodiphenylsulphonic acid (CAR-  
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- Amidodiphenylthiocarbamides (LELL-  
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- tri*Amidodiphenyltolylcarbinol. See  
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- tri*Amidodiphenyltolylmethane. See  
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- di*Amidoditetrahydronaphthylcarbami-  
de (BAMBERGER and BAMMANN),  
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- di*Amidoditolyl. See Tolidine.
- o*-Amidoditolylamine. See Tolyltolyl-  
enediamine.
- 2-Amido-5:5'-ditolyl-4:4'-disulphonic  
acid (HELLE), 1892, A., 1467.
- di-p*-Amidodi-*m*-tolyllic disulphide  
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- Amidodi-*o*-tolyltolylenediamine (KUHL-  
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- di*Amidodixyls and colouring matters  
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STRICKER), 1889, A., 135.
- di*Amidodurylic acid. See *di*Amido- $\psi$ -  
cuminic acid.
- Amidodithanesulphonic acid. See Tau-  
rine.
- di*Amidoethoxydiphenyl (WEINBERG),  
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- di*Amidoethoxydiphenylsulphonic acid  
(WEINBERG), 1888, A., 285; (FEER  
and MÜLLER), 1889, A., 258.
- 1:4-Amidoethoxynaphthalene (GRAND-  
MOUGIN and MICHEL), 1892, A.,  
862; (HEERMANN), 1892, A., 1097.  
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A., 1097.
- $\beta$ -Amidoethoxynaphthalene (GAESS),  
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- di*Amidoethoxynaphthylphenyl (WEIN-  
BERG), 1888, A., 286.
- di*Amidoethoxyphenyltolylsulphonic  
acid (WEINBERG), 1888, A., 286.
- 4-Amido-1-ethoxyquinoline (VIS), 1892,  
A., 1105.
- o*-Amidoethylaniline. See Ethylphenyl-  
enediamine.
- Amidoethylbenzenes, derivatives of  
(PAUCKSCH), 1884, A., 1142; 1885,  
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- o*-Amidoethylbenzenesulphonic acid  
(PAUCKSCH), 1885, A., 256.
- $\omega$ -Amidoethylbromopiperonylcarboxylic  
anhydride (PERKIN), 1890, T.,  
1017.
- Amidoethylic acetate (GABRIEL and  
HEYMANN), 1890, A., 1268.
- Amidoethylic alcohol. See Hydroxy-  
ethylamine.
- Amidoethylic benzoate, salts of (GABRIEL  
and HEYMANN), 1890, A., 1267.
- m*-Amidoethylic cumate (ABENIUS),  
1888, A., 854.
- Amidoethylindene (v. MILLER and  
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- 1-Amidoethylpiperidine (GABRIEL),  
1891, A., 817.
- $\omega$ -Amidoethylpiperonylcarboxylic acid,  
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- di*Amidoethylsulphone (GABRIEL), 1892,  
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- p*-Amidoethyl-*o*-toluidine. See Methyl-  
ethylphenylenediamine.
- Amidoethylxylenes (TÖHL and GEYGER),  
1892, A., 969.
- p*-Amidofluorene (STRASBURGER), 1884,  
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- Amidofumaric acid, diamide of (PERKIN),  
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- Amidogen (NH<sub>2</sub>), alleged existence of  
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- Amidoglycocine (CURTIUS), 1891, A.,  
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- Amido-group, displacement of the, by  
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- Amido-group**, displacement of the, in aromatic derivatives by chlorine, bromine and cyanogen (SANDMEYER), 1884, A., 1311; 1885, A., 149.
- displacement of the, in aromatic compounds by hydrothionyl and oxysulphuryl (KLASON), 1887, A., 478.
- displacement of the, by the sulphonic acid group (LANDSBERG), 1890, A., 1137.
- displacement of cyanogen by the (AHRENS), 1888, A., 266.
- displacement of halogens by the (SEELIG), 1891, A., 36.
- displacement of the nitro-group in aromatic compounds by the (SANDMEYER), 1887, A., 720.
- best method of elimination of (FRIEDLÄNDER), 1889, A., 606.
- reagent for (HINSBERG), 1891, A., 49.
- Amido-groups** in organic bases, method of determining the number of (MELDOLA and HAWKINS), 1892, P., 133.
- di*Amidoguaiacol (HERZIG), 1883, A., 464.
- Amidoguanidine** and its derivatives (THIELE), 1892, A., 1295.
- Amidohemipinic acid**, sodium salt of (GRÜNE), 1887, A., 49.
- o*-**Amidohemipinic anhydride** (LIEBERMANN), 1886, A., 468; 1887, A., 257; (GRÜNE), 1887, A., 48.
- o*-**Amidohemipinphenylhydrazide** (LIEBERMANN), 1887, A., 45.
- Amidoheptamethylene** (MARKOWNIKOFF), 1890, A., 729.
- Amidoheptylbenzene** (AUGER), 1887, A., 816.
- p-di*Amidohexamethylene (v. BAEYER and NOYES), 1889, A., 1147.
- di*Amidohexane and its derivatives (TAFEL), 1889, A., 976; (TAFEL and NEUGEBAUER), 1890, A., 1000.
- $\alpha$ -**Amidohexocyanidine** and  $\alpha$ -**amidohexocyanine** (DUVILLIER), 1887, A., 850.
- $\alpha$ -**Amidohexoic acid**. See Leucine.
- di*Amidohydracridine ketone and its derivatives (JOURDAN), 1885, A., 988.
- o*-**Amidohydrazinebenzene-*p*-sulphonic acid**. See Amidophenylhydrazine-sulphonic acid.
- Amidohydrocarbostyryl** (FISCHER and KUZEL), 1884, A., 441.
- di*Amidohydrocinnamic acid. See *di*Amido- $\beta$ -phenylpropionic acid.
- Amidohydrothiocinnamic acid** (BONDZYŃSKI), 1887, A., 1109.
- Amidohydroxyanthraquinone ethylate** (LIEBERMANN and HAGEN), 1883, A., 73.
- Amido-*o*-hydroxybenzoic acid**. See Amidosalicylic acid.
- 4-Amido-*m*-hydroxybenzoic acid** (LIMPRICHT), 1891, A., 1037.
- $\beta$ -**Amido- $\alpha$ -hydroxybutyric acid** (MELIKOFF), 1884, A., 1301.
- Amidohydroxyisobutyric acid** (MELIKOFF), 1885, A., 650.
- Amidohydroxycamphor** (KACHLER and SPITZER), 1883, A., 1008.
- di*Amidohydroxydiphenyl (WEINBERG), 1888, A., 285.
- p*-**Amido-*m*-hydroxydiphenylamine** (KÖHLER), 1888, A., 587.
- 4-Amido-4'-hydroxydiphenyl-2:2'-disulphonic acid** (LIMPRICHT), 1891, A., 929.
- 4:4'-diAmido-3-hydroxydiphenyl-6-sulphonic acid** (WEINBERG), 1888, A., 285.
- 2-Amido-2'-hydroxy-5:5'-ditolyl-4:4'-disulphonic acid** (HELLE), 1892, A., 1468.
- 4-Amido-1-hydroxy-3-methoxybenzene** (BECHHOLD), 1889, A., 1155.
- 2-Amido-2'-hydroxy-3'-methylhydroquinoline** (EDELEANU), 1888, T., 560; P., 55.
- 2-Amido-1-hydroxy-4-methylquinoline** (GANELIN and v. KOSTANECKI), 1892, A., 506.
- 4-Amido-1-hydroxy-2-naphthoic acid** (NIETZKI and GUETERMANN), 1887, A., 732; (SCHMITT and BURKARD), 1888, A., 59.
- di*Amidohydroxynaphthylphenyl derivatives (MELDOLA and MORGAN), 1889, T., 124, 125.
- Amidohydroxyoxindole chloride** (JACKSON and BENTLEY), 1892, A., 1219.
- tetra*Amidohydroxypentene (NIETZKI and ROSEMAN), 1889, A., 770.
- di*Amido-4-hydroxy-2-phenyl-6-methyl-*m*-diazine (PINNER), 1887, A., 1054.
- p*-**Amido-3-hydroxy-2'-phenylquinoline** (WEIDEL and v. GEORGIEVICS), 1888, A., 967.
- di*Amidohydroxyphenyltolyl (WEINBERG), 1888, A., 285.
- 4:4'-diAmido-3-hydroxyphenyltolylsulphonic acid** (WEINBERG), 1888, A., 285.
- Amidohydroxypropylbenzoic acid**, action of nitrous acid, and of ethylic chloroformate on (WIDMAN), 1884, A., 1022.
- o*-**Amido-*p*-hydroxyisopropylbenzoic acid** (WIDMAN), 1886, A., 466.
- m*-**Amido-*p*-hydroxyisopropylbenzoic acid** (WIDMAN), 1884, A., 317.



**Amido-*exo*-hydroxyisopropylbenzoic acid**, action of acetic anhydride on (WIDMAN), 1884, A., 302.

**Amidohydroxypyridine** and its derivatives (KRIPPENDORFF), 1885, A., 1243.

**1-Amido-3-hydroxyquinoline** (MATHÉUS), 1888, A., 852; (ALTSCHUL), 1888, A., 1108.

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**3'-Amidohydroxyquinoline** and the action of its diazo-salts on phenols and tertiary bases (RIEMERSCHMIED), 1883, A., 1148.

**Amidohydroxythymoquinoneisimide** (ANSCHÜTZ and LEATHER), 1886, T., 725.

**Amido-*o*- and *m*-hydroxytoluic acid** (NIETZKI and RUPPERT), 1891, A., 308.

***di*Amidodiimidobenzene** nitrate (NIETZKI), 1887, A., 930.

**Amidoindazine** (WITT, NÖLTING, and GRAMDMOUGIN), 1891, A., 312.

**Amidoisethionic acid**. See Taurine.

**Amidolepidine**. See Amido-4'-methylquinoline.

***di*Amidomalonamide** (CONRAD and BRÜCKNER), 1892, A., 40.

**Amidomercaptan** (GABRIEL), 1889, A., 870.

hydrochloride (GABRIEL), 1891, A., 815.

**Amidomesitylene**. See Mesidine.

**Amidomethamidoperchloromethylecyanidine** (WEDDIGE), 1886, A., 324.

***m*-Amido-*o*-methoxycinnamic acid** (SCHNELL), 1887, A., 140.

**2-Amido-3-methoxy-2'-phenylhydroquinoline** (V. MILLER and KINKELIN), 1887, A., 978.

***m*-Amido-*p*-methoxytoluene** (LIMPACH), 1889, A., 499.

***di*Amidomethoxytriphenylmethane** (MAZZARA and POSSETTO), 1885, A., 1141.

**Amidomethylantranol** and its acetyl derivative (ROEMER), 1883, A., 1137.

**Amidomethylantraquinone** (ROEMER; ROEMER and LINK), 1883, A., 1137, 1138.

**Amidomethylcarbostyryl** (FEER and KOENIGS), 1885, A., 1235.

**4-Amido-5-methyl-2:6-diethyl-*m*-diazine** (V. MEYER), 1889, A., 577; (SCHWARZE), 1890, A., 1159.

**Amidomethyldihydroanthracene** (ROEMER), 1883, A., 1137.

***m*-*di*Amido-*p*-methyleneethylbenzene** (ERRERA and BALDRACCO), 1892, A., 606.

**Amido-*p*-methylhexadecylbenzene** (KRAFFT and GÖTTIG), 1891, A., 130.

**Amidomethylethylisoxazole** (HARRIOT), 1892, A., 79.

**Amidomethylethylisopropyl-*m*-diazine** (V. MEYER), 1889, A., 578.

**Amido-2'-methylindole** (WAGNER), 1888, A., 284.

**Amidomethylnaphthaquinoline** (WITT), 1886, T., 400.

***o*-Amido-2'-methyloctohydro- $\beta$ -naphthaquinoline** (BAMBERGER and STRASSER), 1891, A., 1514.

**4-Amido-1-methylquinoline** [m.p. 143°] (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.

**Amido-3-methylquinoline** [m.p. 132°] (FOURNEAUX), 1885, A., 400.

**1-Amido-3-methylquinoline** [m.p. 62°] (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.

**4-Amido-3-methylquinoline** [m.p. 145°] (NÖLTING and TRAUTMANN), 1891, A., 325; 1892, A., 727.

**2-Amido-2'-methylquinoline** (GERDEISEN), 1889, A., 520.

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**3'-Amido- and *di*amido-2'-methylquinoline** (CONRAD and LIMPACH), 1888, A., 1111.

**2'-Amido-4'-methylquinoline** (KLOTZ), 1888, A., 1113; (EPHRAIM), 1892, A., 1488.

**3-Amido-4'-methylquinoline** (BUSCH and KOENIGS), 1890, A., 1437.

**Amidomethylselenazole** (HOFMANN), 1889, A., 726.

**3-Amido-1-methyltetrahydroquinoline** (BAMBERGER and WULZ), 1891, A., 1254.

**1-Amido-3-methyltetrahydroquinoline** (BAMBERGER and WULZ), 1891, A., 1255.

***meso*Amidomethylthiazole**. See Thio-cyanopropimine.

***o*-Amidomethyl-*p*-toluidine**. See Methyltolylenediamine.

**Amido- $\beta$ -methylumbelliferone** (V. PECHMANN and COHEN), 1884, A., 1332.

**Amidomethyluracil** (BEHREND), 1886, A., 338.

**Amidomyristic acid** (HELL and TWERDORFF), 1889, A., 956.

**Amidonaphthalene**. See Naphthylamine.

***di*Amidonaphthalene**. See Naphthylenediamine.

**Amidonaphthalenesulphonic acids**. See Naphthylaminesulphonic acids.

**Amido- $\beta$ -naphthaphenanthrazine** (LOEWE), 1890, A., 1424.

- Amidonaphthaphenazine** (ZAERTLING), 1890, A., 509.
- $\alpha$ -Amido- $\alpha$ -naphthaphenazine** (FISCHER and HEPP), 1890, A., 801; (KEHRMANN), 1890, A., 1266.
- Amido- $\beta$ -naphthaquinol** and its hydrochloride (GROVES), 1884, T., 300.
- Amidonaphthaquinone** (MEERSON), 1888, A., 1200.
- Amidonaphthaquinoneimide** (KRONFELD), 1884, A., 1037.
- diAmidonaphtharesorcinol hydrochloride** (KEHRMANN and WEICHARDT), 1889, A., 1198.
- Amidonaphthastyril** (EKSTRAND), 1887, A., 373.
- Amido- $\alpha$ -naphthoic acid derivatives** (EKSTRAND), 1889, A., 152.
- Amido- $\beta$ -naphthoic acid** (EKSTRAND), 1891, A., 932.
- diAmido- $\beta$ -naphthoic acids** (EKSTRAND), 1891, A., 78, 79.
- Amido- $\alpha$ -naphthol [2:1]** (GRANDMOUGIN and MICHEL), 1892, A., 861.
- Amido- $\alpha$ -naphthol [1:4]** (GRANDMOUGIN and MICHEL), 1892, A., 861.
- sulphonic acid from** (SEIDEL), 1892, A., 721.
- diAmido- $\alpha$ -naphthol**, action of bromine on (ZINCKE and GERLAND), 1887, A., 838; (ZINCKE), 1888, A., 290.
- derivatives of** (MEERSON), 1888, A., 713.
- Amido- $\beta$ -naphthol [1:2]** (GRANDMOUGIN and MICHEL), 1892, A., 862.
- identification of** (MELDOLA and MORGAN), 1889, T., 120.
- Amido- $\beta$ -naphthol [1:2]** and its hydrochloride, preparation of, from nitroso- $\beta$ -naphthol (GROVES), 1884, T., 293.
- Amido- $\beta$ -naphthol ... [1':2 and 4':2]** (FRIEDLÄNDER and SZYMANSKI), 1892, A., 1233.
- diAmido- $\beta$ -naphthol hydrochloride** (LOEWE), 1890, A., 1424.
- Amido- $\beta$ -naphthol sulphate** (GROVES), 1884, T., 297.
- Amido- $\alpha$ -naphthol-3:1'-disulphonic acid** (BERNTHSEN), 1891, A., 215.
- Amido- $\beta$ -naphthol -1':3'- and -3:3'-disulphonic acids** (WITT), 1889, A., 273.
- $\alpha$ -Amido- $\alpha$ -naphtholsulphonic acid [4:1:2]** (SEIDEL), 1892, A., 721.
- $\beta$ -Amido- $\alpha$ - and  $\alpha$ -Amido- $\beta$ -naphtholsulphonic acids** (SCHMIDT), 1892, A., 476.
- $\alpha$ -Amido- $\beta$ -naphthol- $\alpha$ -sulphonic acid [1:2:1'], [ $\alpha$ -acid] (WITT), 1889, A., 271.**
- Amido- $\beta$ -naphthol- $\beta$ -sulphonic acid [1:2:3'], [ $\beta$ -acid] (WITT), 1889, A., 272.**
- Amido- $\beta$ -naphthol- $\alpha$ -sulphonic acid, [1:2:4'], [ $\gamma$ -acid] (WITT), 1889, A., 272.**
- Amido- $\beta$ -naphthol- $\beta$ -sulphonic acid, [1:2:2'], [ $\beta$ -acid] (WITT), 1889, A., 272.**
- diAmido- $\beta$ -naphthol- $\alpha$ -sulphonic acid** (NIETZKI and ZÜBELEN), 1889, A., 515.
- Amido- $\alpha$ - and - $\beta$ -naphtholsulphonic acids [4:1:2 and 2:1:4'] (REVERDIN and DE LA HARPE), 1892, A., 996.**
- Amido- $\alpha$ - and - $\beta$ -naphthyl mercaptans** (HOFMANN), 1887, A., 839.
- m-Amido- $p$ - $\alpha$ -naphthylamidobenzoic acid** (HEIDENSLEBEN), 1891, A., 307.
- Amido- $\beta$ -naphthylamine hydrochlorides** (LOEWE), 1890, A., 1424.
- Amido- $\beta$ -naphthylphenylamine.** See Phenyl-naphthylenediamine.
- diAmido- $\beta$ -naphthylphenylamine** (ERNST), 1891, A., 301.
- Amidonaphthylphenylcarbamide** (GOLDSCHMIDT and ROSELL), 1890, A., 616.
- Amidonitro-.** See Nitramido-.
- Amidonononaphthene** (KONOWALOFF), 1892, A., 443.
- ar- $p$ -Amido-octohydro- $\alpha$ -naphthaquinoline** (BAMBERGER and STETTENHEIMER), 1891, A., 1261.
- o-Amido-octylbenzene hydrochloride** (AHRENS), 1887, A., 134.
- $p$ -Amido-octylbenzene and its derivatives** (BERAN), 1885, A., 523.
- Amido-octyltoluene and its derivatives** (BERAN), 1885, A., 523.
- Amido-opianylphenylhydrazide** (LIEBERMANN), 1887, A., 45.
- Amido-oxalacetic acid phenylhydrazone** (TAFEL), 1887, A., 467.
- Amido-oxalamidobenzoic acid.** See Amidocarboxyphenyloxamic acid.
- o-Amido-oxalyl- $\alpha$ -naphthyl mercaptan** (LANG), 1892, A., 1079.
- diAmido-oxalyl- $\alpha$ - and - $\beta$ -naphthyl mercaptans** (V. HOFMANN), 1887, A., 840.
- o-Amido-oxalylphenyl mercaptan** (LANG), 1892, A., 1079.
- Amidoisooxazole** (HANNIOT), 1891, A., 1108.
- "Amido-oxyquinizinecarboxylic acid"** (TAFEL), 1887, A., 468.
- Amido-2'-oxyquinoline.** See Amidocarbostyril.
- $\alpha$ -Amidopalmitic acid** (HELL and IORDANOFF), 1891, A., 820.
- Amidoparalidine** (CURTIUS and JAY), 1890, A., 735.
- Amidoperezone** (ANSCHÜTZ and LEATHER), 1886, T., 720.
- Amidophenaceturic acid** (HOTTER), 1888, A., 1299.

- p*-Amido- and *di*amido-phenanthraquinol hydrochlorides (ANSCHÜTZ and MEYER), 1885, A., 1068.
- α*-*di*Amidophenanthraquinol and its derivatives (KLEEMANN and WENSE), 1885, A., 1240.
- α*-*di*Amidophenanthraquinone (KLEEMANN and WENSE), 1885, A., 1240.
- Amidophenazine (BARBIER and VIGNON), 1888, A., 688; (FISCHER and HEPP), 1889, A., 500.
- 1:4-*di*Amidophenazine (FISCHER and HEPP), 1889, A., 500.
- 2:2'-*di*Amidophenazine (NIETZKI and ERNST), 1890, A., 1114.
- m*-Amido-2-phenethylpiperidine (SCHUFTAN), 1890, A., 1438.
- o*-Amidophenetoil, action of chloracetic acid on (VATER), 1884, A., 1144. action of cyanogen chloride on (BERLINERBLAU), 1885, A., 147.
- m*-Amidophenetoil and its derivatives WAGNER), 1885, A., 1212. hydrobromide (STAEDEL), 1883, A., 578.
- p*-Amidophenetoil, action of cyanogen chloride on (BERLINERBLAU), 1885, A., 147. oxidation products of (KINZEL), 1892, A., 158.
- tetra*Amidophenetoil hydrochloride (KÖHLER), 1884, A., 1161.
- Amidophenetoiltrimethylammonium iodide (SEIDEL), 1891, A., 53.
- Amidophenols. See Phenol.
- Amidophenolsulphonic acids and their relationship to Liebermann's colouring matters (BRUNNER and KRAEMER), 1884, A., 1354. action of bleaching powder on (HIRSCH), 1887, A., 834.
- Amidophenophenanthrazine (HEIM), 1888, A., 1097.
- Amidophenyl amidotolyl ketone (LIEBERMANN), 1888, A., 1097.
- Amidophenyl ethyl ether, *mono*-, *di*-, and *tri*- (LINDNER), 1885, A., 775.
- Amidophenyl ethylene ethers, *o*-, *m*-, and *p*-, preparation, properties and salts of (WAGNER), 1884, A., 433.
- o*-Amidophenyl mercaptan and its derivatives (v. HOFMANN), 1887, A., 823, 1039. formation of anhydro-compounds of, from thioanilides (JACOBSON), 1886, A., 700.
- Amidophenylacetamide (PURGOTTI), 1891, A., 562.
- Amidophenylacetic anhydride (KOSSEL), 1892, A., 468.
- m*-Amidophenylacetoneitrile (FRIEDLÄNDER), 1884, A., 737; (SALKOWSKI), 1884, A., 1176.
- p*-Amidophenylacetoneitrile and its salts (FRIEDLÄNDER and MAHLY), 1883, A., 919; (FRIEDLÄNDER), 1884, A., 737.
- Amidophenylacridine. See Anilido-acridine.
- di*Amidophenylacridine. See Chrysaniline.
- m*-Amidophenyl*di*-*p*-amidotolylmethane (BISCHLER), 1889, A., 133.
- Amidophenylazimidobenzene (WILLGERODT), 1892, A., 1322.
- Amidophenylbenzoglycocoyamine and its hydrochlorides (GRIESS), 1883, A., 669.
- o*-Amidophenylbenzylhydrazine (PAAL and BODEWIG), 1892, A., 1455.
- Amidophenylbiazalone (FREUND and KUH), 1890, A., 1441.
- Amidophenylbismethyltetrahydroquinoxylmethane (v. MILLER and PLÖCHL), 1891, A., 1102.
- Amidophenylcarbazinecarboxylic acid (FREUND and KUH), 1890, A., 1441.
- m*-Amidophenylcrotonaldehyde (v. MILLER and KINKELIN), 1886, A., 701.
- 6-Amido-5-phenyl-2:4-dibenzyl-*m*-diazine (WACHE), 1889, A., 684.
- Amidophenylencarbamide (JENTZSCH), 1889, A., 46.
- o*-Amidophenylethylhydrazine (HEMPER), 1890, A., 612.
- α*-*p*-Amidophenylfurfuracrylonitrile (FREUND and IMMERWAHR), 1890, A., 1408.
- o*-Amidophenylglyoxylic acid. See Isatic acid.
- o*-Amidophenylglyoxylic lactim. See Isatin.
- o*-Amidophenylhydrazine (BISCHLER), 1889, A., 501.
- m*-Amidophenylhydrazine and its hydrochloride (GRIESS), 1885, A., 789.
- 5-Amidophenylhydrazine-*o*-sulphonic acid (LIMPRICHT), 1885, A., 1216.
- o*-Amidophenylhydrazine-*p*-sulphonic acid (NIETZKI and LERCH), 1889, A., 144; (LERCH), 1889, A., 881.
- n*-Amidophenylhydroquinoline (v. MILLER and KINKELIN), 1885, A., 1145.
- o*-Amidophenyl diphenylcarbamate (LELLMANN and BONHÖFFER), 1887, A., 936.
- Amidophenyl diphenylcarbamates (LELLMANN and BENZ), 1891, A., 1215.
- o*-Amidophenyl disulphide (v. HOFMANN), 1887, A., 823.



- p*-Amidophenylic ethylxanthate (LEUCKART), 1890, A., 604.
- o*-Amidophenylic methylic sulphide (v. HOFMANN), 1887, A., 823.
- Amidophenylic phenylmethylcarbamates (LELLMANN and BENZ), 1891, A., 1215.
- di*Amidophenylic thiocyanate (AUSTEN), 1889, A., 700.
- Amido-2'-phenylindole (FISCHER and SCHMIDT), 1888, A., 698.
- Amidophenylinduline (FISCHER and HEPP), 1891, A., 1046.
- action of sulphuric acid on (FISCHER and HEPP), 1892, A., 341.
- p*-Amidophenyllactic acid (ERLENMEYER and LIPP), 1883, A., 994.
- m*-Amidophenyllutidine (LEPETIT), 1887, A., 1053.
- m*-Amidophenyllutidinedicarboxylic acid (LEPETIT), 1887, A., 1053.
- Amido- and *di*amido-2-phenyl-6-methyl-*m*-diazine (PINNER), 1887, A., 1054.
- o*-Amidophenylmethylhydrazine (HEMPEL), 1890, A., 613.
- m*-Amido-2'-phenyl-3'-methylhydroquinoline (v. MILLER and KINKELIN), 1886, A., 561.
- m*-*di*Amido-*p*-phenyl- $\alpha$ -methylpropionic acid (ERRERA and BALDRACCO), 1892, A., 606.
- Amidophenyl-2'-methylquinoline (SCHIFF and VANNI), 1890, A., 1298.
- m*-Amido-2'-phenyl-3'-methylquinoline (v. MILLER and KINKELIN), 1886, A., 560, 561.
- p*-Amido-2'-phenyl-2-methylquinoline ( *$\psi$ -flavaniline*) (WEIDEL and BAMBERGER), 1888, A., 966.
- 4-Amido-2'-phenyl-3'-methylquinoline. See Flavaniline.
- Amidophenylmercaptomethyl mercaptan (JACOBSON and FRANKENBACHER), 1891, A., 1048.
- di*Amidophenyl- $\beta$ -naphthol (ERNST), 1891, A., 301.
- Amido-*n*-phenylosotriazolecarboxylic acid (BALTZER and v. PECHMANN), 1891, A., 1117.
- 1-Amidophenylpiperidine (LELLMANN and JUST), 1891, A., 1245.
- 3-Amidophenylpiperidine, formation of dyes from (LELLMANN and GELLER), 1888, A., 1108.
- o*-Amidophenylpropionic acid and its derivatives (v. BAEYER and BLOEM), 1883, A., 196.
- di*Amidophenylpropionic acid (GABRIEL), 1883, A., 195.
- o*-Amido- $\alpha$ -phenylpropionic anhydride. See Atroxindole.
- $\alpha$ -Amidophenylpropionitrile (ERLENMEYER and LIPP), 1883, A., 992.
- Amidophenylquinoline [m.p. 136° 5] (JELLINEK), 1886, A., 1045.
- Amido-3-phenylquinoline (WEIDEL and v. GEORGIEVICS), 1888, A., 967.
- 2-Amido-2'-phenylquinoline (v. MILLER and KINKELIN), 1885, A., 1144.
- Amidophenylisoquinoline (GABRIEL), 1886, A., 631.
- Amidophenylrosinduline (FISCHER and HEPP), 1890, A., 765.
- Amidophenyltetrazolecarboxylic acid (BLADIN), 1892, A., 1009.
- tri*Amidophenyltoluidine (ERNST), 1891, A., 300.
- o*-Amidophenyl-*p*-[*p*]-tolylamine (HEIDENSELEBEN), 1891, A., 307.
- p*-Amidophenyl-*p*-tolylamine. See Tolyphenylenediamine.
- di*Amidophenyltolylmethanes (ULLMANN), 1888, A., 288.
- Amidophenyltriazolecarboxylic acid (BLADIN), 1892, A., 735.
- o*-Amidophenyltrimethylmethane (SENKOWSKI), 1890, A., 1296.
- p*-Amidophenyltrimethylmethane (SENKOWSKI), 1890, A., 1296; 1892, A., 44.
- p*-Amidophenylurethane and its derivatives (HAGER), 1885, A., 149.
- o*-Amidophenylvaleric acid, derivatives of (DIEHL and EINHORN), 1887, A., 485.
- Amidophthalamide (PELLIZZARI), 1886, A., 1025.
- Amidophthalic acid, salts of (LANDSBERG), 1883, A., 476.
- as*-Amidoisophthalic acid (LOEWENHERZ), 1892, A., 1464.
- di*Amidoisophthalic acid (CLAUS and WYNDHAM), 1889, A., 143.
- Amidophthalide [m.p. 167°] (RACINE), 1887, A., 951.
- [m.p. 178°] (HÖNIG), 1886, A., 242.
- Amidopiaselenole (HINSBERG), 1890, A., 161.
- o*-Amidopiperonaloxime (HABER), 1891, A., 706.
- Amidopiperonylacrylic acid (PERKIN), 1891, T., 158.
- $\gamma$ -Amidopropanesulphonic acid (LAUER), 1890, A., 1090.
- 2:4:1-Amidopropenylbenzoic acid (WIDMAN), 1886, A., 466.
- 3:4:1-Amidopropenylbenzoic acid and its derivatives (WIDMAN), 1884, A., 317.
- action of nitrous acid on (WIDMAN), 1884, A., 1022.

- Amidopropionic acid.** See Alanine.
- Amidopropiophenone hydrochloride** (SCHMIDT), 1890, A., 372.
- o*-Amido-*p*-propyleinnamic acid** (WIDMAN), 1886, A., 464.
- Amidopropylene** (HIRSCH), 1890, A., 860.
- Amidoisopropyl alcohol.** See Hydroxypropylamine.
- $\gamma$ -Amidopropyl benzoate** (GABRIEL and ELFELDT), 1892, A., 213.
- $\beta$ -Amidopropyl benzoate hydrobromide** (GABRIEL and HEYMANN), 1890, A., 1268.
- $\gamma$ -Amidopropyl hydrogen sulphate** (GABRIEL and LAUER), 1890, A., 473.
- Amidoisopropylindene** (v. MILLER and ROHDE), 1889, A., 984.
- $\gamma$ -Amidopropyl hydrogen sulphate** (LAUER), 1890, A., 1090.
- Amidopurpurin** (BRASCH), 1891, A., 1078.
- di*-Amidopyrene** (JAHODA), 1888, A., 161.
- Amidopyridine-3:4-dicarboxylic acid** (GOLDSCHMIEDT and STRACHE), 1889, A., 1016.
- di*-Amidoquinol** (NIETZKI and SCHMIDT), 1889, A., 968.
- hydrochloride, and its derivatives (NIETZKI and PREUSSER), 1886, A., 1024.
- diethyl ether (NIETZKI and RECHBERG), 1890, A., 967.
- tri*-Amidoquinol sulphate** (NIETZKI and SCHMIDT), 1889, A., 968.
- 2-Amidoquinoline** (FREYDL), 1888, A., 296.
- 4-Amidoquinoline** (DUFTON), 1892, T., 785.
- 2'-Amidoquinoline**, preparation of (EPHRAIM), 1891, A., 1509.
- 3'-Amidoquinoline** (RIEMERSCHMIED), 1883, A., 1148.
- 4'-Amidoquinoline** (HOOGWERFF and VAN DORP), 1892, A., 725.
- di*-Amidoquinolines,  $\alpha$ - and  $\beta$ -** (CLAUS and KRAMER), 1885, A., 908.
- Amidoquinones** (KEHRMANN), 1890, A., 756, 1265.
- Amidoquinoneimide** (MELDOLA), 1884, T., 161.
- p*-Amidoquinoxaline** and its salts (HINSBERG), 1886, A., 722.
- Amidoresorcinol** (FEVRE), 1883, A., 733.
- di*-Amidoresorcinol hydrochloride** (TYPKE), 1883, A., 917.
- Amidoresorcinoldisulphonic acid** (ULZER), 1889, A., 510.
- Amidoresorcinolsulphonic acid,  $\alpha$ - and  $\nu$ -** (BRUNNER and KRAEMER), 1884, A., 1354, 1355.
- p*-Amidoresorcinyl dimethyl ether**, and its derivatives (BECHHOLD), 1889, A., 1155.
- 4-Amidosalicylic acid**, action of aniline on (LIMPRICHT and v. RECHENBERG), 1890, A., 158.
- 5-Amidosalicylic acid**, action of benzoic chloride on (DABNEY), 1884, A., 308.
- Amidostearic acid** [m. p. 63°] (GAUTIER and ETARD), 1884, A., 89.
- $\alpha$ -Amidostearic acid** [m. p. 221°] (HELL and SADOWSKY), 1891, A., 1336.
- o*-diAmidostilbene**, azo-dyes from (BISCHOFF), 1888, A., 1094.
- p*-diAmidostilbene** (BENDER and SCHULTZ), 1887, A., 268.
- di*-Amidostilbene sulphide** (ANSCHÜTZ and SCHULTZ), 1889, A., 602.
- di*-Amidostilbenesulphonic acid** (BENDER and SCHULTZ), 1887, A., 268.
- Amidostrychnine** (LOEBISCH and SCHOOP), 1886, A., 268.
- di*-Amidostrychnine** (HANRIOT), 1883, A., 670.
- p*-Amidostyrene** (BERNTHSEN and BENDER), 1883, A., 70.
- m*-Amidostyryl methyl ketone** (v. MILLER and ROHDE), 1890, A., 1138.
- o*-Amidostyrylacrylic acid** (DIEHL and EINHORN), 1885, A., 1222, 1223.
- o*-Amidostyrylpropionic acid** (DIEHL and EINHORN), 1887, A., 485.
- m*-Amido-2-styrylpyridine** (SCHUFTAN), 1890, A., 1438.
- Amidosuccinic acid.** See Aspartic acid.
- di*-Amidosuccinic acid** (CLAUS), 1883, A., 43.
- Amidosulphime dithiocarbamidodisulphinites** (TIEMANN), 1891, A., 557.
- p*-Amido-*o*-sulphobenzoic acid** (HEDRICK), 1888, A., 280.
- p*-Amido-*m*-sulphobenzoic acid** (FISCHER), 1892, A., 332.
- Amidosulphonic acids** (PELLIZZARI and MATTEUCCI), 1888, A., 1302; (KRAFFT and BOURGEOIS), 1892, A., 700.
- action of aldehydes on (CAHN and LANGE), 1887, A., 962.
- Amidosulphonic acids, aromatic**, acetyl derivatives of (NIETZKI and BENCKISER), 1884, A., 1024.
- Amidoterebenthene** (PESCI and BETTELLI), 1887, A., 272; (PESCI), 1891, A., 1086.
- p*-Amidotetrahydro- $\alpha$ -naphthaquinoline** (BAMBERGER and STETTENHEIMER), 1891, A., 1259.
- di*-Amidotetrahydronaphthylthiocarbamide** (BAMBERGER and BAMMANN), 1889, A., 783.

- p*-Amidotetrahydroquinoline (ZIEGLER), 1888, A., 609.
- Amidotetrahydroxybenzene hydrochloride (NIETZKI and SCHMIDT), 1889, A., 969.
- di*Amidotetrahydroxybenzene, and its derivatives (NIETZKI and BENCKISER), 1885, A., 780.
- Amidotetramethylbenzene (*isoduridine*, *tetramethylamidobenzene*) (NÖLTING and BAUMANN), 1885, A., 384, 893.
- m-di*Amidotetramethylbenzidine (LAUTH), 1892, A., 1222.
- Amidotetrazotic acid (THIELE), 1892, A., 1299.
- Amidotetraphenylamidotriphenylmethane (FISCHER and SCHMIDT), 1884, A., 1316.
- $\mu$ -Amidothiazole- $\alpha$ -carboxylic acid (STEUDE), 1891, A., 743.
- $\mu$ -Amidothiazoledicarboxylic acid (RUBLEFF), 1891, A., 224.
- Amidothiazoles, and their isomerides (TRAUMANN), 1889, A., 414.  
from thiocarbamide and halogenated ketones and aldehydes (HANTZSCH and TRAUMANN), 1888, A., 573.
- $\mu$ -Amido- $\alpha$ -thiazylacetic acid (STEUDE), 1891, A., 743.
- Amidothienylacetic acid (BRADLEY), 1886, A., 1014.
- o*-Amidothiobenzamide derivatives (STEWART), 1892, A., 54.
- Amido-*m*- and -*p*-thiocyanocinnamic acids (ROTSCCHILD), 1890, A., 1123; 1891, A., 199.
- Amidodithienylamine (BERNTHSEN), 1885, A., 259; 1886, A., 53.
- di*Amidodithienylamine (BERNTHSEN), 1885, A., 259; 1886, A., 53.
- di*Amidodithienylmethylaniline and its derivatives (BERNTHSEN), 1885, A., 259.
- Amidothionaphthol (CLEVE), 1889, A., 155; (ÉKBOM), 1890, A., 995.
- Amidothiophen hydrochloride, and its derivatives (STADLER), 1885, A., 1204.
- di*Amidothymoquinone (ANSCHÜTZ and LEATHER), 1886, T., 725.
- di*Amidotolazinedicarboxylic acid (KEHRMANN), 1889, A., 1154.
- m*-Amido-*o*-tolidine (LOEWENHERZ), 1892, A., 852.
- 3:4-*di*Amidotoluene. See Toluene-*o*-diamine.
- c-tetra*Amidotoluene, and its sulphate (NIETZKI and RÜSEL), 1891, A., 192.
- penta*Amidotoluene (PALMER), 1889, A., 390.
- o*-Amidotoluene-*p*-azodimethylaniline (WALLACH), 1887, A., 41.
- p*-Amidotoluene-*o*-azodimethylaniline (WALLACH), 1887, A., 41.
- Amidotoluenesulphonic acids. See Toluidinesulphonic acid.
- di*Amidotoluenesulphonic acid (NIETZKI and POLLINI), 1890, A., 502.
- $\beta$ -Amido-*p*-toluic acid (NOYES), 1889, A., 394.
- $\gamma$ -Amido-*o*-toluic acid, phosphate of (HÖNIG), 1886, A., 242.
- $\omega$ -Amido-*m*-toluic acid (REINGLASS), 1891, A., 1345.
- m*-Amido-*p*-toluic acid (*m-homoanthranilic acid*) (NIEMENTOWSKI), 1888, A., 837; 1889, A., 1065; (NIEMENTOWSKI and ROZAŃSKI), 1888, A., 1088; (FILETI and CROSA), 1889, A., 495.
- di*Amido-*p*-toluic acids, 2:3-, 2:5-, and 3:5- (CLAUS and JOACHIM), 1892, A., 176.
- o*-Amido-*p*-toluonitrile (NIEMENTOWSKI), 1888, A., 837; (GLOCK), 1888, A., 1291.
- o*-Amido-*p*-toluoylamide (NIEMENTOWSKI), 1888, A., 837.
- di*Amido-*p*-tolyl ketone (LANGE and ZUFALL), 1892, A., 1460.
- m*-Amido-*o*-tolylacrylic acid (V. MILLER and ROHDE), 1890, A., 1140.
- m*Amido-*p*-(*o*) and -*p*-(*p*-) tolylamidobenzoic acid (HEIDENSLEBEN), 1891, A., 306.
- Amido-*p*-tolylazimidobenzene (WILLGERODT), 1892, A., 1322.
- m*-Amidotolyl-*p*-azoacetoacetic acid (BAMBERGER), 1885, A., 158.
- 2-Amidotolyl-4-oxamic acid (SCHIFF and VANNI), 1890, A., 1125; 1891, A., 833; 1892, A., 599, 601, 1208.
- 2-Amidotolyl-4-oxamide and -oxanilide (SCHIFF and VANNI), 1891, A., 834; 1892, A., 602.
- Amidotolylurethane (SCHIFF and VANNI), 1892, A., 600; (SCHIFF), 1892, A., 1203.
- p*-Amidotriazobenzene (GRIESS), 1888, A., 826.
- m*-Amidotriazobenzoic acid (GRIESS), 1888, A., 826.
- 6-Amido-2:4:5-triethyl-*m*-diazine (WACHE), 1889, A., 684.
- Amidotriethylgallic acid (SCHIFFER), 1892, A., 716.
- Amidotriethylpyrogallol (SCHIFFER), 1892, A., 716.
- Amidotrihydroxynaphthalene (KEHRMANN), 1888, A., 940.
- Amidotrimethylbutyllactic acid (WEIL), 1886, A., 1009.
- Amidotrimethyluracil (HAGEN), 1888, A., 582.



**Amido-** and *triamido-triphenylamine* (HEYDRICH), 1885, A., 1213; (HERZ), 1890, A., 1409.

*triAmidotriphenylarsine* (PHILIPS), 1886, A., 618.

*tetraAmidotriphenylbenzene* (MELLIN), 1890, A., 1423.

*p-Amidotriphenylcarbinol* (V. BAEYER and LÖHR), 1890, A., 1141, 1142.

*triAmidotriphenylcarbinol*. See *p-Ros-aniline*.

**6-Amido-2:4:5-triphenyl-m-diazine** (WACHE), 1889, A., 684.

**Amidotriphenylethophenazonium hydr-oxide** (KEHRMANN and MESSINGER), 1892, A., 1109.

*o-Amidotriphenylmethane* (FISCHER and FRÄNKEL), 1888, A., 56.

*p-Amidotriphenylmethane* (V. BAEYER and LÖHR), 1890, A., 1141.

*diAmidotriphenylmethane*, preparation of (MAZZARA), 1885, A., 904; (ULLMANN), 1885, A., 1236.

action of phenols on (MAZZARA), 1885, A., 800.

action of potassium nitrite on (MAZZARA), 1885, A., 800, 904.

*triAmidotriphenylmethane*. See *p-Leucaniline*.

**Amidotriphenylphosphine oxide** (MICHÆLIS and V. SODEN), 1884, A., 1180.

**Amidotruaxillic acids** (HOMANS, STELTZNER and SUKOW), 1891, A., 1496.

**Amidouracilcarboxylic acid** (KÖHLER), 1887, A., 128; (BEHREND), 1887, A., 920.

**δ-Amidovaleraldehyde** (WOLFFENSTEIN), 1892, A., 1484.

**γ-Amidovaleric acid** (TAFEL), 1886, A., 1008; 1887, A., 463; 1889, A., 961.

**γ-Amidovaleric anhydride** (TAFEL), 1889, A., 961.

**δ-Amidovaleric acid** (SCHOTTEN), 1888, A., 1105.

from the putrefaction of proteids (GABRIEL and ASCHAN), 1891, A., 948.

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- Anemoninic acid** (BECKURTS), 1892, A., 1241.
- Anethoil**, action of light on (DE VARDA), 1891, A., 1347.  
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- Anethoilhydroquinine** (HESSE), 1888, A., 69.
- Angelic acid** (SCHMIDT), 1886, A., 867.  
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*di*bromide (PÜCKERT), 1889, A., 587.
- Angelicalactones**,  $\alpha$ - and  $\beta$ - (WOLFF), 1885, A., 1123.
- Angelica root**, essence of (NAUDIN), 1883, A., 809.
- Anglesite** by Senarmont's process (BOURGEOS), 1888, A., 116.  
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- Angostura bark**, alkaloids of (KÖRNER and BÖHRINGER), 1884, A., 341.  
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- Angosturin** (BECKURTS and NEHRING), 1892, A., 644.
- Anhydride formation** in acids of the succinic series (AUWERS and MEYER), 1890, A., 479; (BISCHOFF), 1890, A., 741.  
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- Anhydrides**, mixed (AUTENRIETH), 1888, A., 250.  
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- Anhydrite**, occurrence, association, and probable mode of formation of (DIEULAFAIT), 1884, A., 25.  
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- Anhydrite**, relative rates of solution of gypsum and (MCCALEB), 1889, A., 466.  
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- Anhydroacetonebenzil** (JAPP and BURTON), 1887, T., 420; P., 30.
- Anhydroacetonephenanthraquinone** (WADSWORTH), 1891, T., 105.
- Anhydroacetophenonebenzil**. See  $\alpha\beta$ -Dibenzoylstyrene.
- Anhydroacetyl**-. See Ethenyl-.
- Anhydroaconitine**, formation and properties of (DUNSTAN and INCE), 1891, T., 283.  
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- Anhydroaldol-*p*-rosaniline hydrochloride** (v. MILLER and PLÖCHL), 1891, A., 1071.
- Anhydro-*o*-amidophenol ethylic acetate**. See Ethylic propenyl-*o*-amidophenol- $\omega$ -carboxylate.
- Anhydro-*o*-amidophenylic carbonate** (BENDER), 1887, A., 38, 245.
- Anhydroamidotolylloxamic acid**, derivatives of (HINSBERG), 1883, A., 1129.
- "**Anhydroanisylphenylthiouramidoxime**" (HOCHEIM), 1890, A., 1265.
- Anhydro-bases** (MELDOLA and STREATFEILD), 1887, T., 691.  
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- Anhydrobenzenesulphone-*o*-amidobenzamide** (FRANKE), 1892, A., 334.
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- Anhydroberberilamide** (PERKIN), 1890, T., 1046.
- Anhydroberberilanilide** (PERKIN), 1890, T., 1047.
- Anhydroberberilic acid**, constitution and synthesis of (PERKIN), 1890, T., 994, 1037, 1061.  
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- Anhydroberberilic chloride** (PERKIN), 1890, T., 1042.
- Anhydrocamphoronic acid** (KACHLER and SPITZER), 1885, A., 807.
- Anhydrocinnamaldehydeanilsidine** (v. MILLER and PLÖCHL), 1892, A., 1195.
- Anhydro-compounds** (BÖTTCHER), 1883, A., 800; (NIEMENTOWSKI), 1886, A., 544; 1887, A., 937.
- Anhydrodiacetylacetamidil**. See 4-Acetyl-amido-2:6-dimethyl-*m*-diazine.
- AnhydrodiacetyletHENYLAMIDINE** (PINNER), 1884, A., 723; 1889, A., 1004.
- Anhydrodiazohemipinic acid** (GRÜNE), 1887, A., 49.

- Anhydrodipyrrogallopropionic acid** and its derivatives (BÖTTINGER), 1884, A., 319.
- Anhydroecgonine** (EINHORN), 1887, A., 741; 1889, A., 169; (LIEBERMANN and GIESEL), 1889, A., 168. constitution of (MERLING), 1892, A., 360. conversion of, into pyridine (EINHORN), 1889, A., 909. derivatives of (EINHORN), 1887, A., 741. dibromide, derivatives of (EICHENGRÜN and EINHORN), 1891, A., 65, 66. hydrochloride, specific rotatory power of (EINHORN), 1889, A., 1018. action of hydrogen bromide on (EICHENGRÜN and EINHORN), 1891, A., 94.
- Anhydroformaldehyde compounds** (WELLINGTON and TOLLENS), 1886, A., 330.
- Anhydroformaldehydeaniline** (TOLLENS), 1884, A., 988; (v. MILLER and PLÖCHL), 1892, A., 1190.
- "Anhydroformyl-*o*-amido-*p*-toluylamide"** (NIEMENTOWSKI), 1889, A., 1065.
- Anhydrogeraniol** (SEMMLER), 1891, A., 655.
- Anhydrogluco-*o*-diamidobenzene** (GRIESS and HARROW), 1887, A., 930.
- Anhydrogluco-*m-p*-diamidotoluene** (FISCHER), 1889, A., 484.
- Anhydroglycolylphenylamidoacetic acid** (ABENIUS), 1890, A., 245.
- Anhydroglycolyl-*o*-tolylamidoacetic acid** (ABENIUS), 1888, A., 825.
- Anhydrolupinine** (BAUMERT), 1883, A., 100.
- Anhydro-*m*-nitrocinnamaldehydanisidine** [(v. MILLER and PLÖCHL), 1892, A., 1195.
- Anhydronitrosulphaminebenzoic acid**, potassium salt of (NOYES), 1886, A., 804.
- Anhydrophenylhydrazine-*o*-carboxylphenylglyoxylic acid** (HENRIQUES), 1888, A., 842.
- Anhydrophenyltaurine** (LEYMANN), 1885, A., 786.
- $\alpha$ -Anhydrophospholuteotungstic acid** (KEHRMANN), 1887, A., 777.
- Anhydrosalicylic glucoside**, synthesis of (MICHAEL), 1883, A., 76.
- $\alpha$ -Anhydrosulphaminephthalic acid** and its derivatives (STOKES), 1885, A., 539; (MOULTON), 1891, A., 1063. potassium salt of (REMSEN and COMSTOCK), 1884, A., 320.
- Anhydrotaurine** (JAMES), 1886, T., 490.
- Anhydrotimboin** (PFAFF), 1891, A., 939.
- Anhydrotricarballic acid** (EMERY), 1891, A., 680; (AUWERS, KÖBNER and v. MEYENBURG), 1892, A., 41.
- Anhydrotriethylsulphamic acid** (BEILSTEIN and WIEGAND), 1883, A., 971.
- Anhydrovaleraldehydaniline** (v. MILLER and PLÖCHL), 1892, A., 1193.
- Anil-**. See Phenylimido-.
- Anilic acid**, decomposition products of (HANTZSCH), 1892, A., 834. substituted, crystalline forms of the sodium salts of (POPE), 1892, T., 381; P., 106. brom-. See Bromanilic acid. chlor-. See Chloranilic acid. nitr-. See Nitranilic acid. sulph-. See Aniline-*p*-sulphonic acid.
- Anilic acids** (SALZMANN), 1887, A., 926. formation of, from anhydrides of dibasic acids (ANSCHÜTZ), 1888, A., 277. constitution of (NEF), 1889, A., 497. of dibasic acids, action of phosphorus pentachloride on (ANSCHÜTZ), 1888, A., 594.
- Anilides**, formation of (TOBIAS), 1883, A., 325; (KELBE), 1883, A., 915; (MICHAEL), 1886, A., 697; (MICHAEL and PALMER), 1886, A., 698. preparation and properties of (PICTET), 1890, A., 758. decomposition of, at a high temperature (BISCHOFF), 1888, A., 726. action of dilute nitric acid on (NORTON and ALLEN), 1885, A., 1213. physiological action of (GIBBS and REICHERT), 1891, A., 1282.
- Anilides, acid**, colour reactions of (TAFEL), 1892, A., 709.
- Anilides, isoanilides** and their analogues (COMSTOCK and WHEELER), 1892, A., 705.
- Anilidoacetanilide**, action of carbonyl chloride on (BISCHOFF and NAST-VOGEL), 1890, A., 1164.
- Anilidoacetanilidoacetic acid** (*phenylglycinphenylamidoacetic acid*) (REBUFFAT), 1887, A., 1108; (BISCHOFF), 1888, A., 726; (ABENIUS), 1888, A., 854.
- Anilidoacetic acid** (*phenylglycocine*) (GABRIEL and BORGMANN), 1883, A., 1121. preparation of (HAUSDÖRFER), 1889, A., 1013. derivatives of (REBUFFAT), 1887, A., 1108; (BISCHOFF and HAUSDÖRFER), 1892, A., 1333.

- Anilidoacetic acid** (*phenylglycocine*), indole from (MAUTHNER and SUIDA), 1889, A., 1068.  
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- Anilidoaceto-*p*-toluidide** (BISCHOFF and HAUSDÖRFER), 1890, A., 1285.
- $\beta$ -Anilido-acids**, condensation products from (REISSERT and TIEMANN), 1886, A., 551; (REISSERT), 1888, A., 276, 694.
- Anilidoacridine** (HESS and BERNTHSEN), 1885, A., 800.
- Anilidoacridines** (BESTHORN and CURTMAN), 1891, A., 1232.
- Anilidoacridylbenzoic acid** (BESTHORN and CURTMAN), 1891, A., 1234.
- $\beta$ -Anilidoacrylic acid** (REISSERT), 1888, A., 276.
- Anilidoaniline-3-sulphonic acids**, 4- and 6- (FISCHER), 1892, A., 332.
- Anilidobenzanilide**, 3:4-nitr- (GROHMANN), 1891, A., 305.  
 5:2-nitr- (GROHMANN), 1892, A., 326.
- Anilidobenzeneazobenzene polysulphonic acids**, preparation of (ANON.), 1884, A., 237.
- Anilidobenzene-*m*-disulphonic acid** (*diphenylaminedisulphonic acid*) (FISCHER), 1892, A., 333.
- Anilidobenzene sulphononic acids**, *m*-nitr- *o*- and *p*- (FISCHER), 1892, A., 332.
- m*-Anilidobenzoic acid**, and some of its salts (CLAUS and NICOLAYSEN), 1886, A., 68.
- o*-Anilidobenzoic acid**, *m*-nitro- (SCHÖPF), 1891, A., 304.
- p*-Anilidobenzoic acids**, *m*-amido- and *m*-nitro- (SCHÖPF), 1890, A., 374.
- Anilidobenzonitriles**, *m*-nitro- *o*- and *p*- (SCHÖPF), 1891, A., 305.
- Anilidobenzophenones**, *m*-nitro- *o*- and *p*- (SCHÖPF), 1892, A., 336.
- Anilidobenzylthiocarbamide**, cyan- (FREUND and IMMERWAHR), 1890, A., 1408.
- Anilidobenzoylnaphthaquinones**, *o*- and *p*- (KEGEL), 1888, A., 1308.
- Anilidobromopianic acid** (TUST), 1892, A., 1209.
- $\alpha$ -Anilidobutyric acid** (NASTVOGEL), 1890, A., 1159, 1160.
- Anilidoisobutyric acid**, nitr- (EDELEANU), 1888, T., 560.
- $\alpha$ -Anilidoisobutyric acid**, and its amide and nitrile (TIEMANN), 1883, A., 199.
- Anilidoisobutyric acids** (BISCHOFF and MINTZ), 1892, A., 1338.
- Anilidocarbamidophenol** (KALCKHOFF), 1883, A., 1110.
- Anilidocinnoline** (BUSCH and KLETT), 1892, A., 1494.
- $\beta$ -Anilidocrotonic acid**,  $\alpha$ -bromo- (KNORR and ANTRICK), 1885, A., 273.
- Anilidocumylacetic acid** (*isopropylphenyl-anilidoacetic acid*) (FILETI and AMORETTI), 1891, A., 1060.
- Anilido-*p*-diketohexene**, *pentachlor*- (ZINCKE and FUCHS), 1892, A., 448.
- Anilidodimethylpyrrolone** (KNORR), 1889, A., 386.
- Anilidodiphenamic acid** (GRAEBE and AUBIN), 1889, A., 145.
- Anilidodiphenylacetic acid** (KLINGER and STANDKE), 1889, A., 885.
- Anilidodiphenylpyrrolone** (KLINGEMANN), 1892, A., 1002.
- Anilidoethoxytoluquinoneanilide** and its derivatives (ZINCKE), 1883, A., 1118.
- Anilidoethyldiphthalamie acid** (GABRIEL), 1889, A., 1167.
- Anilidoethylenephnylamidoacetic acid** (BISCHOFF and NASTVOGEL), 1890, A., 1160.
- Anilidoethylideneanilide** (BERLINERBLAU and POLIKIER), 1887, A., 813.
- Anilidoethylphthalamie acid** and  **$\beta$ -anilidoethylphthalimide** (GABRIEL), 1889, A., 1166.
- Anilidoethylpiperonylcarboxylic anhydride** (PERKIN), 1890, T., 1036.
- Anilidoformylcamphor** (CLAISEN), 1891, A., 575.
- Anilidofumarimide** (LÖSCHER and KUSSEROW), 1888, A., 1281.
- $\beta$ -Anilidoglutaranil** (ANSCHÜTZ), 1891, A., 741.
- Anilidoglutaric acid**, condensation products of (REISSERT), 1891, A., 567.
- Anilido-*p*-hydroxybenzoic acid**, *m*-nitr- (SCHÖPF), 1890, A., 375.
- Anilidohydroxychloroethoxyquinone** (KEHRMANN), 1891, A., 904.
- 1-Anilido-3-hydroxyquinoline**, 2:4-*di*-chloro- (ZINCKE), 1891, A., 1250.
- Anilidohydroxyquinone** and **anilido-hydroxyquinoneanilide** (ZINCKE), 1885, A., 787.
- Anilidoisethionic acid** and its salts (ANDREASCH), 1883, A., 665.



- 1-Anilidoketodihydroquinoline, *tri-chloro-* (ZINCKE), 1891, A., 1251.
- 4-Anilido-2:6-lutidine (CONRAD and EPSTEIN), 1887, A., 501.
- Anilidomaleic acid, anil and monanilide of (MICHAEL and PALMER), 1888, A., 461.
- Anilidomethylacridine (BESTHORN and CURTMAN), 1891, A., 1233.
- 6-Anilido-5-methyl-2:4-diethyl-*m*-diazine (v. MEYER), 1889, A., 685.
- Anilidomethylmaleic acid phenylimide (WISLICENUS and SPIRO), 1890, A., 379.
- 2'-Anilido-4'-methylquinoline (*phenyl-lepidinamine*) (KNORR), 1887, A., 159.
- 4'-Anilido-2'-methylquinoline (*phenyl-amidoquinaldine*) (CONRAD and LIM-PACH), 1887, A., 680.
- $\alpha$ -Anilidomethylsuccinic acid ( $\alpha$ -anilido-pyrotartaric acid), its derivatives and condensation-product (SCHILLER-WECHSLER), 1885, A., 900.
- $\beta$ -Anilidomethylsuccinic acid (REISSERT), 1888, A., 694.  
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- Anilidomyristic acid (HELL and TWERDOMEDOFF), 1889, A., 957.
- Anilidonaphthalene, chlorotrinitr- (CLEVE), 1890, A., 626.
- Anilidonaphthaquinone, *dichlor-* (HELLSTRÖM), 1889, A., 149.  
*o*-nitr- (LEICESTER), 1890, A., 1446.
- Anilidonaphthaquinoneanilide (BRÖMME), 1888, A., 491.  
*dibrom-* (FISCHER and HEPP), 1888, A., 473.  
 $\beta$ -chlor- (ZINCKE), 1888, A., 711.  
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- Anilidonaphthaquinonedianil (FISCHER and HEPP), 1891, A., 1045.
- $\alpha$ -Anilido- $\alpha$ -naphthato-lazine (EICKER), 1891, A., 471.
- $\beta$ -Anilidonaphthoic acid and its anilide (SCHÖPFF), 1892, A., 1476.
- 2'-Anilido- $\beta$ -naphthol (CLAUSIUS), 1890, A., 629.
- Anilidonaphthylcarbamide (BAMBERGER and SCHIEFFELIN), 1889, A., 892.
- Anilidoisonaphthylrosinduline (FISCHER and HEPP), 1891, A., 1044.
- 3-Anilido- $\alpha$ - and  $\beta$ -naphthylthiobiazolones (FREUND), 1892, A., 508.
- 3-Anilido- $\alpha$ -naphthylthiobiazolone (FREUND), 1892, A., 508.
- Anilidodinitrobenzyl methyl ketone (JACKSON and MOORE), 1890, A., 737.
- Anilido-opianic and anilidonitrobianic acids (LIEBERMANN), 1887, A., 46.
- $\alpha$ -Anilidopalmitic acid (HELL and IORDANOFF), 1891, A., 821.
- Anilidoperezone (MYLIUS), 1885, A., 778.
- Anilidophenol (LIMPRICHT and v. RECHENBERG), 1890, A., 158.
- Anilidophenolsulphonic acid (LIMPRICHT and v. RECHENBERG), 1890, A., 159.
- Anilidophenylacetic acid and its amide and nitrile (TIEMANN and PIEST), 1883, A., 198.
- Anilidophenylacridine (BESTHORN and CURTMAN), 1891, A., 1233.
- $\beta$ -Anilidophenylacrylanilide (KNORR), 1888, A., 1112.
- Anilidophenylamidophenylinduline (FISCHER and HEPP), 1892, A., 342.
- Anilidophenylbromomethylmethylanilidopyrazolone (REISSERT), 1890, A., 643.
- $\alpha$ -Anilidophenylcrotonic acid and its amide (PEINE), 1884, A., 1345.
- $\alpha$ -Anilidophenylcrotononitrile (PEINE), 1884, A., 1345; (v. MILLER and PLÖCHL), 1892, A., 1194.
- 1-Anilido-5-phenyl-3-diphenylpyrrolidone (JAPP and KLINGEMANN), 1890, T., 683.
- $\alpha$ -Anilido- $\alpha$ -phenylpropionamide and  $\alpha$ -anilido- $\alpha$ -phenylpropionitrile (JACOBY), 1886, A., 800.
- Anilidophthalaminic acid (HÜTTE), 1887, A., 669.
- Anilidopipitzaholic acid. See Anilidoperezone.
- $\alpha$ -Anilidopropionamide (TIEMANN and STEPHAN), 1883, A., 199; (STEPHAN), 1887, A., 143.
- $\alpha$ -Anilidopropionic acid and its derivatives (TIEMANN and STEPHAN), 1883, A., 199; (ERLENMEYER and LIPP), 1883, A., 992; (STEPHAN), 1887, A., 143; (NASTVOGEL), 1889, A., 1012; 1890, A., 1159.  
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- $\beta$ -Anilidopropionic acid (*phenyl- $\beta$ -alanine*) (BISCHOFF and MINTZ), 1892, A., 1342.
- o*-nitro- and its derivatives (EINHORN), 1884, A., 304.
- p*-nitro- and its derivatives (BASLER), 1884, A., 1172.
- $\alpha$ -Anilidopropionitrile (TIEMANN and STEPHAN), 1883, A., 199; (ERLENMEYER and LIPP), 1883, A., 992; (STEPHAN), 1887, A., 142.  
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**Anilidopropylcarbamide** (GOLDENRING), 1890, A., 977.

**$\beta$ -Anilidopropylphthalimide** (GOLDENRING), 1890, A., 976.

**$\gamma$ -Anilidopropylphthalimide** (SEITZ), 1891, A., 1473.

**Anilidopyrotartaric acid.** See Anilidomethylsuccinic acid.

**Anilidoquinolinequinoneanilide** (HEBRAND), 1889, A., 62.

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**Anilidoquinonedianil** (FISCHER and HEPP), 1890, A., 912.

**$\alpha$ -Anilidostearic acid** (HELL and SADOWSKY), 1891, A., 1336.

**Anilidosuccinic acid.** See Phenylaspartic acid.

**Anilido-*m*-sulphobenzoic acids, *o*- and *p*-** (FISCHER), 1892, A., 333.

**Anilidotetraphenylpyrroline** (KLINGEMANN), 1892, A., 995.

**Anilidothiazole** (HANTZSCH and TRAUMANN), 1888, A., 573; (TRAUMANN), 1889, A., 415.

**Anilidotoluene.** See Phenyltolylamine.

**Anilidotoluquinone, nitr-** (LEICESTER), 1890, A., 1446.

**Anilidotoluquinoneanil** (FISCHER and HEPP), 1890, A., 912.

**Anilido-*m*-tolylacetic acid** (BORNE-MANN), 1884, A., 1162.

**Anilido-*m*-tolylacetoneitrile, and its amide** (BORNEMANN), 1884, A., 1162.

**Anilidotolylamine, diamido-, and di-nitr-** (ERNST), 1891, A., 300.

***o*-Anilidotolylcarbamide** (LEUCKART), 1890, A., 760.

**Anilidotricarballylic acid** (EMERY), 1891, A., 680.

**4'-Anilido-1:3:2'-trimethylquinoline** (CONRAD and LIMPACH), 1888, A., 503.

**$\alpha$ -Anilidoisovaleramide** (v. MILLER and PLÖCHL), 1892, A., 1192.

**Anilidovaleric acid and other constituents of lupin shoots** (SCHULZE and BARBIERI), 1883, A., 1122.

**Aniline** (*phenylamine : amidobenzene*) from phenol (MERZ and MÜLLER), 1887, A., 243.

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**Aniline** (*phenylamine : amidobenzene*), action of the induction spark on (DESTREM), 1884, A., 1243.

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action of *di*bromo- $\alpha$ -naphthol on (MELDOLA), 1884, T., 156.

action of *isobutyric* acid on (BARDWELL), 1886, A., 52.

action of carbonic anhydride on (DITTE), 1888, A., 49.

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action of phosphorus trichloride on (JACKSON and MENKE), 1885, A., 254.

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action of sulphur chloride on (EDEL-EANU), 1891, A., 1202.

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**Aniline** (*phenylamine* : *amidobenzene*),  
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**Acetylbenzeneazo- $\psi$ -cumaldehyde** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1209.

**Acetyl-m-chlorobenzene-p-azo-p-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 975.

**Acetyl-p-chlorobenzeneazo-p-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.

**Acetyl- $\psi$ -cumeneazophenol** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.

**Acetylenedicarboxylodiazooacetic acid** (BUCHNER), 1889, A., 694.

**Acetyl-o-nitrohydroxyazobenzene** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1211.

**Acetylphenolbisazotoluene, 1:2:4-** (GOLDSCHMIDT and POLLAK), 1892, A., 976.

**Acetylphenylazoacetone** (GOLDSCHMIDT and POLLAK), 1892, A., 977.

**Acetyl-p-tolueneazo-p-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.

**Acetyl-p-tolueneazophenol** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.

**Alkyldiazoamides**, synthesis of (MELDOLA and STREATFIELD), 1890, T., 785.

mixed, nature of the combination between (MELDOLA and STREATFIELD), 1890, T., 798.

**Alkyldiazoamido-compounds**, synthesis of heterogeneous mixed (MELDOLA), 1889, T., 610; P., 127.

**Anhydrosazohemipinic acid** (GRÜNE), 1887, A., 49.

**Anilidobenzeneazobenzene polysulphonic acids**, preparation of (ANON.), 1884, A., 237.

**Anisenzylazoximebenzenyl** (MILLER), 1890, A., 145.

**Anisenzylazoximecarbonyl** (MILLER), 1890, A., 145.

**Anisenzylazoximeethenyl** (MILLER), 1890, A., 145; (HOCHHEIM), 1890, A., 1265.

## AZO-COMPOUNDS—

- Anisenzylazoximepropenyl- $\alpha$ -carboxylic acid** (MILLER), 1890, A., 145; (HOCHHEIM), 1890, A., 1265.
- Azimides and  $\psi$ -Azimides** (ZINCKE and CAMPBELL), 1890, A., 787.
- Azimidobenzene** (GRIESS), 1883, A., 184.
- Azimidobenzene**, brom- and trichlorobrom- (ZINCKE and ARZBERGER), 1889, A., 501.
- Azimidobenzoic acid** (GRIESS), 1883, A., 57.
- Azimidodibromodiamidodiphenyl** (SCHULTZ), 1884, A., 903.
- Azimido-compounds** (ZINCKE and ARZBERGER), 1889, A., 501; (ZINCKE and CAMPBELL), 1890, A., 787.
- constitution of (GRIESS), 1883, A., 56; (NÖLTING and ABT), 1888, A., 273.
- formula of (ZINCKE), 1890, A., 990.
- Azimidophenyl- $\alpha$ -naphthylamine**, nitr- (HEIM), 1888, A., 1097.
- Azimidophenyl- $\beta$ -naphthylamine**, nitr- (HEIM), 1888, A., 488.
- Azimidotoluene** (NÖLTING and ABT), 1888, A., 274.
- 2:3-Azimido-*p*-toluic acid** (CLAUS and BEYSEN), 1892, A., 177.
- Azimido-*p*-[*p*]toluidobenzoic acid** (HEIDENSLIBEN), 1891, A., 306.
- Azimidouramidobenzoic acid** (GRIESS), 1883, A., 57.
- Azoacetanilide** (MIXTER), 1884, A., 301.
- Azoacetoaceticbenzoic acid** (GRIESS), 1885, A., 788.
- Azoamidobenzene**, *m*-nitr-. See Benzeneazoaniline, *m*-nitro.
- Azoamidobenzenesulphonic acids**. See Benzeneazoanilinesulphonic acids.
- Azoamidonaphthalenebenzenesulphonic acids**. See Sulphobenzeneazonaphthylaminesulphonic acids.
- p*-Azoaniline**. See Benzeneazoaniline, amido-.
- Azobenzene**, spectrum of (HARTLEY), 1887, T., 176.
- colour of (ARMSTRONG), 1892, P., 194.
- action of heat on the vapour of (FERKO), 1887, A., 572.
- action of benzaldehyde on (BARSILOWSKY), 1886, A., 148.
- action of bromine on (ARMSTRONG), 1892, P., 194.
- nitration of (JANOVSKY), 1885, A., 789.
- ethylxanthate and disulphide (LEUCKART), 1890, A., 605.

## AZO-COMPOUNDS—

- Azobenzene**, substitution products of (JANOVSKY), 1883, A., 324; 1884, A., 1145.
- amido-. See Benzeneazoaniline.
- diamido-. See Benzeneazophenylenediamine.
- p*-diamido-. See Benzeneazoaniline, amido-.
- triamido-. See Benzeneazophenylenediamine, amido-.
- bromo-derivatives (JANOVSKY and ERB), 1887, A., 478; (JANOVSKY), 1887, A., 663.
- o*-brom- (JANOVSKY), 1886, A., 795; (JANOVSKY and ERB), 1886, A., 1024.
- m*-brom- (JANOVSKY and ERB), 1886, A., 1024; 1887, A., 478.
- p*-brom- (JANOVSKY and ERB), 1887, A., 478; (JANOVSKY), 1887, A., 663; (NÖLTING and WERNER), 1891, A., 211.
- tetra*- and *hepta*-brom-, disulphochlorides (RODATZ), 1883, A., 479.
- bromonitro-derivatives of (JANOVSKY), 1887, A., 478.
- bromonitr- (WILLGERODT), 1888, A., 949.
- bromonitroso- (WILLGERODT), 1888, A., 949.
- p*-chlor-, and its derivatives (HEUMANN and MENTHA), 1886, A., 874; 1887, A., 247.
- allo-m*-chlorodibromo-*o*-nitroso- (WILLGERODT and ELLON), 1891, A., 1361.
- chloro-*p*-nitr- (DAHME and GASIOROWSKI), 1887, A., 248.
- m*-chloro-*o*-nitr- (WILLGERODT and FERKO), 1888, A., 830.
- allo-m*-chloro-*o*-nitr- (WILLGERODT and ELLON), 1891, A., 1361.
- chlorodinitr-, and chlorotritr- (WILLGERODT and ELLON), 1891, A., 1361.
- p*-chlorodinitr-, *p*-chlorotritr-, and *p*-chlorotetranitr- (WILLGERODT), 1890, A., 1118.
- p*-chloronitronitroso-derivatives (WILLGERODT), 1890, A., 1118.\*
- m*-chloro-*o*-nitroso- (WILLGERODT and FERKO), 1888, A., 830.
- p*-chlorodinitroso- (WILLGERODT), 1890, A., 1119.
- p*-cyan- (MENTHA and HEUMANN), 1887, A., 248.
- p*-iod- (NÖLTING and WERNER), 1891, A., 211.
- di-p*-iod-, colour of (LING), 1892, P., 198.

## AZO-COMPOUNDS—

- Azobenzene**, nitro-derivatives of (JANOVSKY), 1883, A., 867; 1887, A., 663.  
 nitr- (JANOVSKY and ERB), 1887, A., 478.  
 reduction of (JANOVSKY), 1885, A., 789.  
*o*-nitro- (JANOVSKY), 1886, A., 794.  
*p*-nitro- (JANOVSKY and ERB), 1885, A., 894.  
 dinitro-compounds (JANOVSKY), 1886, A., 794.  
 dinitro-, reduction of (JANOVSKY), 1885, A., 789.  
*o*- and *m*-trinitro- (KLINGER and ZUURDEEG), 1890, A., 762.  
*p*-trinitro-, and *o*-*p*-tetranitro- (WILLGERODT and HERMANN), 1890, A., 1259.  
 dinitro-*m*- and -*p*-amido- (ODDO), 1891, A., 554.  
 nitronitroso- (WILLGERODT and HERMANN), 1889, A., 1161.  
 reduction of (WILLGERODT), 1892, A., 1322.  
 nitrodinitroso- (WILLGERODT and FERKO), 1888, A., 829; (WILLGERODT), 1891, A., 689.  
 dinitronitroso-, conversion of trinitrohydrazobenzene into (FREUND), 1889, A., 977.  
 dinitrodinitroso-, and trinitronitroso- (WILLGERODT and HERMANN), 1890, A., 1259.  
 dinitroso- (WILLGERODT and FERKO), 1888, A., 830; (WILLGERODT and HERMANN), 1889, A., 1160; (KEHRMANN and MESSINGER), 1892, A., 889; (WILLGERODT), 1892, A., 1079; (KEHRMANN), 1892, A., 1198.  
 preparation of (WILLGERODT), 1892, A., 1321.  
**Azobenzeneazo-*p*-chloronitrobenzene**, trinitronitroso- (WILLGERODT), 1890, A., 1119.  
**Azobenzeneazo-*p*-cresol** (NÖLTING and KOHN), 1884, A., 901.  
**Azobenzeneazonaphthol**, *m*-nitro- (nitrobenzeneazobenzeneazonaphthol) (MELDOLA), 1884, T., 113.  
**Azobenzeneazo- $\beta$ -naphthylethylamine** (HENRIQUES), 1885, A., 168.  
**Azobenzene-*o*-carboxylic acid**, and its *p*-bromo- and *p*-chloro-derivatives (PAAL), 1892, A., 67.  
**Azobenzene-*p*-carboxylic acid** (MENTHA and HEUMANN), 1887, A., 248.

## AZO-COMPOUNDS—

- Azobenzene-*p*-chlorazobenzene**, nitro-trinitroso- (WILLGERODT and BÖHM), 1891, A., 907.  
 trinitronitroso- (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.  
**Azobenzenechlorobenzamide** (LIMPRICHT), 1891, A., 1037.  
**Azobenzene-*m*-chlorophenylhydrazine**, trinitro- and trinitronitroso- (CURTIUS and LANG), 1892, A., 455, 456.  
**Azobenzene-*p*-chlorophenylhydrazine**, tetranitro- (WILLGERODT and BÖHM), 1891, A., 907.  
 trinitronitroso- (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.  
**Azobenzeneacyanacetophenone** (HALLER), 1889, A., 873.  
**Azobenzenediazine sulphite** (GRIESS), 1883, A., 181.  
**Azobenzenedisulphonamides**, tetra- and hexa-brom- (RODATZ), 1883, A., 479, 480.  
**Azobenzene-3:3-disulphonamide** (LIMPRICHT and MEYER), 1892, A., 973.  
**Azobenzenedisulphonic acid** (GRIESS), 1883, A., 182.  
 from "acid-yellow" (EGER), 1889, A., 709.  
**Azobenzenedisulphonic acids**, constitution of (RODATZ), 1883, A., 477.  
 brominated, and their derivatives (RODATZ), 1883, A., 478.  
**Azobenzene-*m*-hydroxybenzoic acid** (LIMPRICHT), 1891, A., 1037.  
**Azobenzeneinduline**, amido- (FISCHER and HEPP), 1891, A., 1046.  
**Azobenzene-*o*-methylcyanacetophenone** (HALLER), 1889, A., 874.  
**Azobenzenenitrolic acids** (JANOVSKY and ERB), 1885, A., 894.  
**Azobenzenephenylenediaminebenzene** (GRIESS), 1883, A., 1102.  
**Azobenzenephenylenediamine-*p*-toluene**,  $\alpha$ - and  $\beta$ - (GRIESS), 1883, A., 1102, 1103.  
**Azobenzenephenylhydrazine**, chloronitro- and nitro-derivatives of (WILLGERODT and MÜHE), 1892, A., 455.  
 trinitronitroso- (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.  
**Azobenzenephenylthiocarbamide** (BERJU), 1884, A., 1149.  
**Azobenzene- $\beta$ -resorcylic acid** (LIMPRICHT), 1891, A., 1037.



## AZO-COMPOUNDS—

- Azobenzenesalicylaldehyde** (TUMMELEY), 1889, A., 780.
- Azobenzenesalicylamide** (TUMMELEY), 1889, A., 780.
- Azobenzenesalicylic acid** and its derivatives (LIMPRICHT), 1891, A., 1036.
- Azobenzenesalicylic alcohol** (TUMMELEY), 1889, A., 780.
- Azobenzenesulphinic acids** (LIMPRICHT), 1885, A., 984; (BAUER), 1885, A., 1139.
- Azobenzenesulphonic acid**, nitrodi-nitroso- (WILLGERODT and FERKO), 1888, A., 829.
- Azobenzene-*p*-sulphonic acid**, substitution products of (JANOVSKY), 1883, A., 1101.
- p*-amido- (GRIESS), 1883, A., 181. and its salts (JANOVSKY), 1883, A., 867, 1101.
- m*-brom- (JANOVSKY and ERE), 1887, A., 478.
- p*-brom-, and its salts (JANOVSKY), 1884, A., 1146; (JANOVSKY and ERE), 1887, A., 478.
- chlor-, and its derivatives (MENTHA and HEUMANN), 1887, A., 248.
- dichlor-, salts of (CALM), 1883, A., 341.
- o*-nitr- (LERCH), 1889, A., 881.
- p*-nitr-, and its salts (JANOVSKY), 1883, A., 867.
- dinitr- and its salts (JANOVSKY), 1884, A., 1145.
- Azobenzenesulphonic acids** and their salts and nitro-compounds (JANOVSKY), 1883, A., 324.
- Azobenzenethiosulphonic acids** (LIMPRICHT), 1885, A., 984; (BAUER), 1885, A., 1139.
- Azobenzenyl peroxide** (BECKMANN), 1889, A., 980.
- p*-Azobenzylidisulphonic acid (MOHR), 1884, A., 69.
- Azobenzil** (*benzilam*), Zinin's (JAPP), 1883, T., 11; 1884, A., 313; (HENIUS), 1885, A., 1067.
- Azobenzonic acids**, action of alcohol on (REMSSEN and GRAHAM), 1889, A., 975.
- p*-Azobenzonic acids, *mono*- and *di*-nitro- (RODZIANKO), 1889, A., 141.
- Azobenzoylcarbinol** (*syn.* for isatin) (GUMPERT), 1886, A., 342.
- Azobenzylethylamidophenol** (LELLMANN and BOYE), 1890, A., 1116.
- p*-Azobenzylidisulphonic acid. See Tolueneazotoluene-di-*o*-sulphonic acid.

## AZO-COMPOUNDS—

- o*-Azo-*p*-bromacetanilide (MATTHIESSEN and MIXTER), 1887, A., 251.
- Azocamphene** (TANRET), 1888, A., 720.
- Azocarboxylic acid** (OST), 1883, A., 792.
- Azocresol-compounds** (NÖLTING and KOHN), 1884, A., 900.
- Azo-*p*-cresol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 736.
- Azocumene** (POSPECHOFF), 1886, A., 459.
- Azo- $\psi$ -cumene** ( $\psi$ -*cumencazo*- $\psi$ -*cumene*) (POSPECHOFF), 1888, A., 140.
- o*-amido- (ZINCKE and JAENKE), 1888, A., 469.
- Azocumic acid**, derivatives of (ALEXÉEFF), 1885, A., 390.
- Azocumic chloride** (ALEXÉEFF), 1890, A., 891.
- Azocymene** (*cymeneazocymene*) (SCHUMOFF), 1888, A., 469.
- Azodiacetamidotoluene** (BANKIEWICZ), 1889, A., 865.
- Azodibenzenephenylenediamine** (*benzeneazobenzeneazophenylenediamine*) (GRIESS), 1883, A., 1103.
- o*-Azodibenzylamine (LELLMANN and ARNOLD), 1892, A., 316, 890.
- Azodicarbonamide** and its salts (THIELE), 1892, A., 1297.
- preparation of (THIELE), 1892, A., 1430.
- Azodicarboxylic acid** (THIELE), 1892, A., 1429.
- Azodihydrobenzene**, *p*-dinitr- (WILLGERODT), 1890, A., 1116.
- Azodihydroxyquinoline** (BISCHOFF), 1889, A., 519.
- Azodimethoxyphenylpyrazole** (KNORR and BLANK), 1884, A., 1380.
- Azodimethylquinol** and its *di*bromo-derivatives (BAESSLER), 1884, A., 1330; 1887, A., 364.
- Azoethylbenzenes**, *o*- and *p*-, and their reduction (SCHULTZ), 1884, A., 903.
- Azoimide** (*nitrogen hydride; hydrazoic acid*) (CURTIUS), 1891, A., 56; 1892, A., 112; (MENDELÉEFF), 1891, A., 394; (CURTIUS and RADENHAUSEN), 1891, A., 524.
- preparation of (MAUMENÉ), 1891, A., 262.
- formation of (MELDOLA and HAWKINS), 1892, P., 133.
- formation of, from *d*initrotriazobenzene (NÖLTING and GRANDMOUGIN), 1891, A., 1473.

## AZO-COMPOUNDS—

- Azoimide** (*nitrogen hydride; hydrazoic acid*), synthesis of (WISLICENUS), 1892, A., 1151.  
 thermochemistry of (BACH), 1892, A., 933.  
 heat of formation of (BERTHELOT and MATIGNON), 1892, A., 261.  
 action of, on living organisms (LOEW), 1892, A., 90.
- Azoisatin** (CURTIUS and LANG), 1892, A., 451.
- Azomalonicbenzoic acid** (GRIESS), 1885, A., 788.
- Azomesitylene** (SCHULTZ), 1884, A., 904.
- Azomethoxyphenylethylpyrazole** (KNORR and BLANK), 1884, A., 1380.
- Azo-*p*-methoxytoluene** (SCHULHÖFER), 1891, A., 1232.  
 amido- (LIMPACH), 1889, A., 499.
- Azo-2'-methylindole** (WAGNER), 1888, A., 284.
- Azomethylphenyl** (*benzeneazomethane*) (TAFEL), 1885, A., 1061.
- Azo-1-methylquinoline** (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- Azo- $\alpha$ -naphthalene** (*naphthaleneazo- $\alpha$ -naphthalene*) and its derivatives (NIETZKI and GOLL), 1885, A., 545; 1886, A., 245.  
 preparation and reduction of (FRIEDLÄNDER), 1889, A., 607.  
 amido-, spectrum of (HARTLEY), 1887, T., 190.  
 melting-point of (NIETZKI and GOLL), 1885, A., 545.  
 formation of pyridine from (v. BUCHKA and SPRAGUE), 1889, A., 728.
- Azo- $\beta$ -naphthalene**, derivatives of (NIETZKI and GOLL), 1886, A., 714; (MELDOLA and EAST), 1888, T., 460; P., 47.  
 amido- (NIETZKI and GOLL), 1886, A., 714.  
 spectrum of (HARTLEY), 1887, T., 191.  
 derivatives of (ZINCKE and LAWSON), 1888, A., 159.
- $\beta$ - $\alpha$ -Azonaphthalene** and its amido-compound (NIETZKI and GÖTTIG), 1887, A., 590.
- Azonaphthalenesalicylic acids**,  $\alpha$ - and  $\beta$ - (GEBEK), 1889, A., 780.
- o*-Azo- $\alpha$ -naphthol compounds** (NÖLTING and GRANDMOUGIN), 1891, A., 1074.

## AZO-COMPOUNDS—

- Azo- $\beta$ -naphthol compounds** containing acid radicles, reduction of (MELDOLA and MORGAN), 1889, T., 117.  
 acetyl derivatives of (MELDOLA), 1888, A., 487.  
 alkyl derivatives of (MELDOLA and MORGAN), 1889, T., 603.  
 benzoyl derivatives of (MELDOLA and MORGAN), 1889, T., 114.
- Azonaphthol-dyes**, constitution of (LIEBERMANN), 1884, A., 609.
- Azonaphthols** (MELDOLA and MORGAN), 1889, T., 603; P., 127.
- Azo- $\beta$ -naphthylphenylamine** (ZINCKE and LAWSON), 1887, A., 730; (ZINCKE), 1890, A., 990.
- Azonitrobenzeneacetylsalicylic acid** (GEBEK), 1889, A., 780.
- Azonitrolic acids**, reduction of (JANOVSKY), 1885, A., 789.
- Azonitromethanebenzoic acid** (GRIESS), 1885, A., 788.
- Azo-opianic acid**. See *o*-Amidohemipinic anhydride.
- m*-Azophenetoil** (BUCHSTAB), 1884, A., 1147.
- o*-Azophenol**, trichlor- (BOHN and HEUMANN), 1884, A., 1015.
- p*-Azophenol** and its sulphonic acid (BOHN and HEUMANN), 1883, A., 583.
- Azophenols**, behaviour of, towards various reagents (BOHN and HEUMANN), 1884, A., 1014.
- Azo-*o*-phenoxyacetic acid** and its salts (THATE), 1884, A., 1170.
- Azophenylacetic acid** and its salts (WITTENBERG), 1885, A., 661.
- Azophenylacetacetamide** (LEUCKART and HOLTZAPFEL), 1889, A., 864.
- Azophenylallyl** (*benzeneazopropylene*) (FISCHER and KNOEVENAGEL), 1887, A., 933.
- Azophenylene**. See Phenazine.
- Azophenylenediaminebenzene-*m*-benzoic acid** (GRIESS), 1883, A., 1103.
- m*-Azophenylglyoxylic acid** and its salts (THOMPSON), 1883, A., 998.
- Azophenylhydrazine compounds** (WILLGERODT), 1890, A., 1118.
- Azophthalic acid**, action of stannous chloride on (CLAUS and HEMMANN), 1883, A., 1126.
- Azoresorcinol** and its derivatives (BRUNNER and KRAEMER), 1884, A., 1333; (BRUNNER), 1885, A., 776.

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**Azoresorufin** and its derivatives (BRUNNER and KRAEMER), 1884, A., 1333, 1354; (BRUNNER), 1885, A., 776.

dimethyl ether (KRAEMER), 1884, A., 1341.

**Azoresorufylhydrochloride** (BRUNNER and KRAEMER), 1884, A., 1334.

**Azosphimbecarbohydrosulphides** (TIEMANN), 1891, A., 557.

**Azo-*p*-sulphobenzene- $\delta$ -diamidobenzoic acid** (GRIESS), 1883, A., 184.

**Azo-*p*-sulphobenzenephenylenediamine** (*phenylenediamineazobenzeneazobenzenesulphonic acid*) (GRIESS), 1883, A., 1103.

**Azo-*p*-sulphobenzenephenylenediaminebenzene** (*benzeneazophenylenediamineazobenzenesulphonic acid*) (GRIESS), 1883, A., 1103.

**Azosphobenzeneetoluidineamine.**

See Tolylenediamineazobenzeneazobenzenesulphonic acid.

**Azoterephthalic acid** (HOMOLKA and LÖW), 1886, A., 702.

**Azotetrahydro- $\alpha$ -naphthalene**, *ar-amido-* (BAMBERGER and LENG-FELD), 1890, A., 1305.

**Azotoline** (FISCHER and HEPP), 1891, A., 1046.

***o*-Azotoluene** (SCHULTZ), 1884, A., 903; (POSPECHOFF), 1888, A., 825.

*o*-amido-, oxidation of (ZINCKE), 1886, A., 236.

nitro-derivatives of (POSPECHOFF), 1889, A., 501.

***m*-Azotoluene**, *dinitro-* (v. BUCHKA and SCHACHTEBECK), 1889, A., 701.

***p*-Azotoluene** (PIERSON and HEUMANN), 1883, A., 915; (JANOVSKY), 1889, A., 250.

substitution products of (JANOVSKY and ERB), 1887, A., 479; (JANOVSKY and REIMANN), 1888, A., 686.

amido-, and its derivatives (NÖLTING and WITT), 1884, A., 742.

*o*-bromo-, *m*-bromo-, and *di*-m-bromo- (JANOVSKY and REIMANN), 1888, A., 686.

chloro- (MENTHA), 1887, A., 248.

nitro-derivatives of (JANOVSKY and ERB), 1887, A., 479; (JANOVSKY), 1889, A., 251; 1890, A., 140.

***m-p*-Azotoluene** (ZINCKE and LAWSON), 1886, A., 795.

**Azotoluenes** (JANOVSKY), 1890, A., 140.

*trinitr-*, isomerism of (HANTZSCH and WERNER), 1890, A., 350.

## AZO-COMPOUNDS—

***o*-Azotoluene-*p*-disulphonamide** (HELLE), 1892, A., 1468.

**Azotoluenedisulphonic acids** and their derivatives (KORNATZKI), 1884, A., 71.

**Azo-*p*-toluenephenylenediaminebenzene** (GRIESS), 1883, A., 1103.

**Azo-*p*-toluenephenylenediamine- $\beta$ -naphthalene** (GRIESS), 1883, A., 1103.

***p*-Azotoluene-*m*-sulphonic acid** (JANOVSKY), 1888, A., 370.

*o*-bromo- (JANOVSKY and REIMANN), 1888, A., 686.

**Azotoluidine** and its salts (LIMPRICHT), 1885, A., 975; (GRAEFF), 1885, A., 1128.

***o*-Azo-*o*-toluidine** (GREEN and LAWSON), 1891, T., 1016.

**Azo-*o*-toluquinoline.** See Azo-1-methylquinoline.

**Azotolyl** (BARSILOWSKY), 1888, A., 140.

**Azoxazolecarboxylic acid** (SÖDERBAUM), 1891, A., 827, 1184; (WOLFF and GANS), 1891, A., 896.

**Azoximes** (TIEMANN and KRÜGER), 1884, A., 1325; (TIEMANN), 1885, A., 895; 1890, A., 41, 140, 141, 253; 1891, A., 538; 1892, A., 135, 317.

***p*-Azoxyacetanilide** (MIXTER), 1884, A., 301.

**Azoxy-*p*-acetotoluidide** (BANKIEWICZ), 1889, A., 865.

***p*-Azoxyaniline** and its derivatives (MIXTER), 1884, A., 301.

**Azoxybenzanilide**, *o*- and *m*- (MIXTER), 1884, A., 301.

***p*-Azoxybenzanilide** (MIXTER), 1884, A., 666.

**Azoxybenzene**, Klinger's method of preparing (MOLTSCHANOWSKI), 1883, A., 180.

resolution of (FRISWELL and GREEN), 1885, T., 923.

***m*-dichlor-** (SCHULTZ), 1884, A., 903. chloronitronitroso- (WILLGERODT and MÜHE), 1892, A., 455.

***p*-chlorodinitroso-** (WILLGERODT and BÖHM), 1891, A., 905.

**nitr-** (JANOVSKY and ERB), 1887, A., 479, 664.

***m*-dinitr-** (KLINGER and PITTSCHKE), 1886, A., 53.

***o*- and *m*-trinitr-** (KLINGER and ZUURDEEG), 1890, A., 761.

**Azoxybenzenesulphonic acids**, and their salts (LIMPRICHT), 1885, A., 984.



AZO-COMPOUNDS—

- Azoxybenzotoluidide** (MIXTER), 1884, A., 666.
- p*-**Azoxybenzoylformic acid** (ENGLER and ZIELKE), 1889, A., 506.
- o*-**Azoxybenzylethylaniline** (LELLMANN and BOYE), 1890, A., 1116.
- p*-**Azoxy-*o*-dichlorostilbene** (WITT), 1892, A., 444.
- Azoxydiphenylamine** (FISCHER and WACKER), 1888, A., 1286.
- Azo-*o*-xylene**, 1:2:3- (NÖLTING and STRICKER), 1889, A., 135.
- Azo-*m*-xylene**, 1:3:4- (NÖLTING and STRICKER), 1889, A., 136.
- Azo-*p*-xylene**, 1:4:2- (SAMANOFF), 1883, A., 780; (NÖLTING and STRICKER), 1889, A., 136.
- m-p*-**Azoxyene** (ZINCKE and JAENKE), 1888, A., 470.
- Azoxyenes** and colouring matters derived therefrom (NÖLTING and STRICKER), 1889, A., 135.
- amido- (NÖLTING and FOREL), 1886, A., 58.
- Azo-*m*-xylenedisulphonic acid** (1:3:4:6-) and its salts (JACOBSEN and LEDDERBOGE), 1883, A., 593.
- Azoxy-*p*-methoxytoluene** (BRASCH and FREYSS), 1891, A., 1231.
- Azoxymethylethylisooxazole** (HARRIOT), 1892, A., 79.
- Azoxy-1-methylquinoline** (NÖLTING and TRAUTMANN), 1891, A., 328.
- Azoxymethylquinolines** (NÖLTING and TRAUTMANN), 1892, A., 727, 729.
- α*-**Azoxynaphthalene-*α*-sulphonic acid** and its salts (ALÉN), 1886, A., 555.
- α*-**Azoxy-*β*-naphthylamine** (HARDEN), 1890, A., 631.
- p*-**Azoxyphenetol** (KINZEL), 1892, A., 159.
- Azoxyphenol ethers** (GATTERMANN and RITSCHKE), 1890, A., 1119.
- p*-**Azoxyphenol** (FISCHER and WACKER), 1888, A., 1286.
- Azoxy-*o*-phenoxyacetic acid** (THATE), 1884, A., 1170.
- Azoxypropylbenzoic acid** (WIDMAN), 1883, A., 330.
- Azoxyisopropylbenzoic acid** (ALEXÉEFF), 1885, A., 390.
- Azoxyterephthalaldehydic acid** (HOMOLKA and LÖW), 1886, A., 701.
- Azoxyterephthalic acid** (HOMOLKA and LÖW), 1886, A., 702.
- "Azoxytoluene"** [Petrieff's] (POSPECHOFF), 1888, A., 826.
- o*-**Azoxytoluene** (KLINGER and PITTSCHKE), 1886, A., 53; (GUITEMANN), 1887, A., 932.

AZO-COMPOUNDS—

- m*-**Azoxytoluene** (v. BUCHKA and SCHACHTEBECK), 1889, A., 701.
- Azoxytoluenes** (JANOVSKY), 1890, A., 140.
- two isomeric (JANOVSKY and REIMANN), 1889, A., 392.
- α*- and *β*-, and their bromo- and nitro-derivatives (JANOVSKY), 1889, A., 865.
- p*-**Azoxytoluenes**, isomerism of (HANTZSCH and WERNER), 1890, A., 350.
- Azoxytoluenesulphonic acid** (JANOVSKY and REIMANN), 1889, A., 392.
- Azoxytoluidine** (LIMPRICHT), 1885, A., 974.
- p*-**Azoxy-*o*-toluidine** (GREEN and LAWSON), 1891, T., 1016.
- salts of (GRAEFF), 1885, A., 1128.
- o*-**Azoxy-*p*-toluonitrile** (NIEMEN-TOWSKI), 1889, A., 1005.
- m*-**Benzamidoazophenol** (SCHULZE), 1889, A., 778.
- Benzazimide** (FINGER), 1888, A., 948.
- Benzeneazo-**. See also Phenylazo- and Azobenzene.
- Benzeneazoacetone**. See Pyruvaldehydephenylhydrazone.
- Benzeneazoaniline**, preparation of (WITT and THOMAS), 1883, T., 113; (FISCHER), 1884, A., 1014.
- action of acetone on (ENGLER and SCHESTOPAL), 1887, A., 480.
- action of aniline hydrochloride on (WITT and THOMAS), 1883, T., 112; (ISTEL), 1892, A., 492.
- action of hydrochloric acid on (FISCHER), 1884, A., 1014.
- bye-products in the manufacture of (GATTERMANN and WICHMANN), 1888, A., 829.
- relation of diazobenzeneanilide to (FRISWELL and GREEN), 1885, T., 917; P., 102; 1887, P., 26.
- Wallach's explanation of the isomeric transformation of diazoamidobenzene into (MELDOLA), 1887, P., 27.
- derivatives of (JANOVSKY), 1883, A., 867; (BERJU), 1884, A., 1148; 1885, A., 660; (NÖLTING and BAUMANN), 1885, A., 386.
- Benzeneazoaniline**, amido- (MIXTER), 1889, A., 666; (NIETZKI), 1884, A., 1016; (JANOVSKY), 1885, A., 1131.
- m*-nitro- (MELDOLA), 1884, T., 112.
- Benzeneazoaniline mono- and di-sulphonic acids** (GRIESS), 1883, A., 181.

## AZO-COMPOUNDS—

- Benzeneazobenzaldehyde** (BEYER and CLAISEN), 1888, A., 828.
- Benzeneazobenzeneazo-*p*-cresol** (NÖLTING and KOHN), 1884, A., 901.
- Benzeneazobenzeneazonaphthol**, nitro- (MELDOLA), 1884, T., 113.
- Benzeneazobenzeneazophenylenediamine** (GRIESS), 1883, A., 1103.
- Benzeneazobenzoic acid** (MENTHA and HEUMANN), 1887, A., 248.
- Benzeneazobenzonitrile** (MENTHA and HEUMANN), 1887, A., 248.
- Benzeneazobenzoylactic acid**, and *o*-nitro- (BAMBERGER and CALMAN), 1886, A., 62.
- Benzeneazobenzoylacetone** (BEYER and CLAISEN), 1888, A., 828.
- Benzeneazobenzylidene- $\beta$ -naphthylamine** (GOLDSCHMIDT and ROSELL), 1890, A., 616.
- Benzene-*o*-azobromobenzene** (JANOVSKY), 1886, A., 795; (JANOVSKY and ERB), 1886, A., 1024.
- Benzene-*m*-azobromobenzene** (JANOVSKY and ERB), 1886, A., 1024; 1887, A., 478.
- Benzene-*p*-azobromobenzene** (JANOVSKY and ERB), 1887, A., 478; (JANOVSKY), 1887, A., 663; (NÖLTING and WERNER), 1891, A., 211.
- Benzeneazo-bromonitrobenzene and -bromonitrosobenzene** (WILLGERODT), 1888, A., 949.
- Benzeneazodibromobenzene, dibromo- and benzeneazotribromobenzene, tribromo-, disulphochlorides** (RODATZ), 1883, A., 479.
- Benzeneazo-*p*-bromobenzene**, nitro- and nitroso-derivatives of (WILLGERODT and ELLON), 1891, A., 1362.
- Benzeneazocarvacrol** (MAZZARA), 1885, A., 1132.
- Benzeneazo-*p*-chlorobenzamide** (LIMPRICHT), 1891, A., 1037.
- Benzeneazochlorobenzene**, and its derivatives (HEUMANN and MENTHA), 1886, A., 874; 1887, A., 247.
- Benzeneazo-*o*-chlorobenzene**, dinitro-nitroso- (WILLGERODT), 1891, A., 1043.
- Benzeneazo-*m*-chlorobenzene**, nitro- and nitronitroso-derivatives of (WILLGERODT and MÜHE), 1892, A., 454.
- Benzeneazo-*p*-chlorobenzene**, nitro- and nitronitroso-derivatives of (WILLGERODT and BÖHM), 1891, A., 905.

## AZO-COMPOUNDS—

- Benzeneazo-chloronitrobenzene and -chloronitrosobenzene** (WILLGERODT and FERKO), 1888, A., 830.
- Benzeneazo-*m*-chlorodimethylaniline**, *m*-nitro- (STAEDEL and BAUER), 1886, A., 944.
- $\beta$ -Benzeneazo- $\alpha$ -chloronaphthalene** (ZINCKE and KEGEL), 1889, A., 267.
- Benzeneazo-*o*- and -*p*-cresetols** (NÖLTING and WERNER), 1891, A., 212.
- Benzeneazo-*m*-cresol** (NÖLTING and KOHN), 1884, A., 902.
- Benzeneazo-*o*- and -*p*-cresols**, and their acetic and benzoic derivatives (LIEBERMANN and V. KOSTANECKI), 1884, A., 736; (NÖLTING and KOHN), 1884, A., 900.
- Benzeneazo-*p*-cresol**, *m*- and *p*-chloro- (GOLDSCHMIDT and POLLAK), 1892, A., 974, 975.
- o*-nitro- (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.
- Benzeneazocresols**, reduction of (LIEBERMANN and V. KOSTANECKI), 1884, A., 1146.
- Benzeneazo-*p*-cresolsulphonic acid** (NÖLTING and KOHN), 1884, A., 901.
- Benzeneazocumenol**, and its reduction (LIEBERMANN and V. KOSTANECKI), 1884, A., 1147.
- Benzeneazocyanacetophenone** (HALLER), 1889, A., 873.
- Benzeneazocyanocamphor** (MINGUIN), 1892, A., 1343.
- Benzeneazo-2-2'-dianilidonaphthalene** (CLAUSIUS), 1890, A., 629.
- Benzeneazodibenzoylmethane** (BEYER and CLAISEN), 1888, A., 828.
- Benzeneazodibenzoylmethane-*p*-sulphonic acid**, sodium salt of (BEYER and CLAISEN), 1888, A., 828.
- Benzeneazodihydroxynaphthalene**, 1:2:2' (CLAUSIUS), 1890, A., 628.
- Benzeneazodimethylaniline**, *m*-amido- (WALLACH), 1887, A., 41.
- p*-amido- (MELDOLA), 1884, T., 107.
- tribromo-** (SILBERSTEIN), 1883, A., 661.
- m*-chloro- (STAEDEL and BAUER), 1886, A., 944.
- nitro-derivatives of (NÖLTING), 1888, A., 270.
- m*-nitro- (MELDOLA), 1884, T., 120; 1887, A., 152; (STAEDEL and BAUER), 1886, A., 944.
- p*-nitro- (MELDOLA), 1884, T., 107.
- See also Dimethylamidoazobenzene.

## AZO-COMPOUNDS—

- Benzeneazodimethylanilinesulphonic acid** (NÖLTING), 1888, A., 271.
- Benzeneazo- $\alpha$ -dinaphthylamine** (FISCHER and HEPP), 1890, A., 912.
- $\alpha$ -Benzeneazo- $\alpha\beta$ -dinaphthylamine** (MATTHES), 1890, A., 385, 993.
- Benzeneazo- $\beta\beta$ -dinaphthylamine** (MATTHES), 1890, A., 993.
- Benzeneazodiphenyl** (LOCHER), 1888, A., 589.
- Benzeneazodiphenylamine**, *m*-nitro- (MELDOLA), 1884, T., 118, 119.  
*p*-nitro- and *p*-amido- (MELDOLA), 1883, T., 440.  
*m*- and *p*-nitroso- (MELDOLA), 1884, T., 118, 119.
- Benzeneazodiphenylcarbamide** (GOLDSCHMIDT and ROSELL), 1890, A., 616.
- Benzeneazodiphenyldisulphonic acid** (GRIESS), 1888, A., 827.
- Benzeneazodiphenylthiocarbamide** (BERJU), 1884, A., 1149.
- o*-Benzeneazoethylresorcinol** (PUKALL), 1887, A., 662.
- Benzeneazo-*m*-hydroxybenzoic acid** (LIMPRICHT), 1891, A., 1037.
- Benzeneazohydroxybenzyl alcohol** (TUMMELEY), 1889, A., 780.
- m*-Benzeneazo-*o*-hydroxymethylquinoline** (GANELIN and v. KOSTANECKI), 1892, A., 506.
- Benzeneazo-*o*- and -*p*-hydroxyquinolines** (MATHEUS), 1888, A., 851.
- Benzeneazo-*p*-hydroxyquinolinesulphonic acid** (MATHEUS), 1888, A., 851.
- Benzeneazoindoxyl** (v. BAEYER), 1884, A., 74.
- Benzeneazoiodobenzene** (NÖLTING and WERNER), 1891, A., 211.  
iodo-, colour of (LING), 1892, P., 198.
- Benzeneazo-ketones** (v. RICHTER and MÜNZER), 1884, A., 1342.
- Benzeneazomalonic acid** (MEYER), 1888, A., 369; 1891, A., 922.
- Benzeneazomethane** (*azomethylphenyl*) (TAFEL), 1885, A., 1061.
- Benzeneazomethylaniline**, *p*-nitro- (NÖLTING), 1888, A., 273.  
and its acetyl derivative (BERJU), 1884, A., 1149.
- Benzeneazo-*o*-methylcyanacetophenone** (HALLER), 1889, A., 874.
- 1"-Benzeneazo-2"-methyl-*ar*-octohydro- $\beta$ -naphthaquinoline** (BAMBERGER and MÜLLER), 1891, A., 1512; (BAMBERGER and STRASSER), 1891, A., 1513.

## AZO-COMPOUNDS—

- 2'-Benzeneazo-2"-methyl-*ar*-octohydro- $\beta$ -naphthaquinoline** (BAMBERGER and STRASSER), 1891, A., 1513.
- Benzeneazo- $\alpha$ -naphthaleneazo- $\alpha$ - and - $\beta$ -naphthols**, *m*-nitro- (MELDOLA), 1884, T., 114, 116.
- Benzeneazo- $\alpha$ -naphthaleneazoresorcinol**, *m*-nitro- (MELDOLA), 1884, T., 116.
- Benzeneazonaphthalenes**, nitro-, nitroso-, and nitronitroso-derivatives of (WILLGERODT and SCHULTZ), 1891, A., 572.
- Benzeneazonaphtharesorcinol**, nitroso- (v. KOSTANECKI), 1890, A., 261.
- Benzeneazo- $\alpha$ -naphthol**, action of diazobenzoic acid and of diazo-sulphanilic acid on (NÖLTING and GRANDMOUGIN), 1891, A., 1076.  
identity of, with  $\alpha$ -naphthaquinone-hydrazide (ZINCKE and BINDEWALD), 1885, A., 391.  
amido-, methyl and ethyl ethers of (WITT and SCHMIDT), 1892, A., 862.
- Benzeneazo- $\beta$ -naphthol**, action of carbon disulphide on (JACOBSON), 1888, A., 487.  
reduction of (MELDOLA and MORGAN), 1889, T., 122; P., 12.  
*m*-nitro-, acetyl derivative of (MELDOLA and EAST), 1888, T., 464.
- Benzeneazo- $\alpha$ - and - $\beta$ -naphthols** (LIEBERMANN), 1884, A., 610; (ZINCKE and RATHGEN), 1887, A., 54.  
*p*-nitro- and *p*-amido- (MELDOLA), 1885, T., 661, 662.
- Benzeneazo- $\alpha$ -naphthol-*m*-carboxylic acid**, *o*- and *p*- (NÖLTING and GRANDMOUGIN), 1891, A., 1074.
- Benzeneazo- $\beta$ -naphtholdisulphonic acid**, oxidation of (LAUTH), 1892, A., 48.
- Benzeneazonaphtholsulphonic acid**, spectrum of (HARTLEY), 1887, T., 196.
- Benzeneazo- $\alpha$ -naphthylamidoacetic acid** (DONNER), 1892, A., 191.  
*o*-, *m*-, and *p*-nitro- (DONNER), 1892, A., 1100.
- Benzeneazo- $\alpha$ -naphthylamine**, *p*-amido- (MELDOLA), 1883, T., 432.  
*m*-nitro- (MELDOLA), 1884, T., 114.  
*p*-nitro- (MELDOLA), 1883, T., 430.
- Benzeneazo- $\beta$ -naphthylamine** and its derivatives (LAWSON), 1885, A., 803; (ZINCKE and LAWSON), 1888, A., 159.



## AZO-COMPOUNDS—

- Benzeneazo- $\beta$ -naphthylamine**, action of aldehydes and of nitric acid on (MELDOLA and HUGHES), 1891, T., 379.  
 action of dimethylaniline on (GOLD-SCHMIDT and BARDACH), 1892, A., 980.  
 derivatives (MELDOLA and HUGHES), 1891, A., 372; P., 83.  
 triazine from (MELDOLA), 1890, T., 329.  
*o*-nitro- (MELDOLA and HUGHES), 1891, T., 373.  
*m*-nitro-, action of nitrous acid on (MELDOLA and EAST), 1888, T., 463.  
*p*-nitro-, and its reduction (MELDOLA), 1883, T., 430.  
 formation of  $\psi$ -azimides from (MELDOLA and HUGHES), 1891, T., 378.  
**Benzeneazo- $\beta$ -naphthylamines**, nitro-, constitutional formulæ of (MELDOLA), 1884, T., 118.  
 acetyl derivatives of (MELDOLA and HUGHES), 1891, T., 375.  
**Benzeneazo- $\alpha$ -naphthyl dimethylamine** (EICKER), 1891, A., 470.  
**Benzeneazo- $\alpha$ -naphthylethylamine** (HENRIQUES), 1885, A., 168; (FISCHER and HEPP), 1890, A., 911; (EICKER), 1891, A., 470.  
**Benzeneazo- $\beta$ -naphthylethylamine** (HENRIQUES), 1885, A., 168.  
**Benzeneazo- $\alpha$ - and - $\beta$ -naphthyl acetates**, nitration of (MELDOLA and MORGAN), 1889, T., 609.  
**Benzeneazo- $\beta$ -naphthyl acetate** (MELDOLA and EAST), 1888, T., 466; (MELDOLA and MORGAN), 1889, T., 609.  
 reduction of (MELDOLA and MORGAN), 1889, T., 117, 122; P., 12.  
**Benzeneazo- $\alpha$ -naphthyl benzoate** (MELDOLA and MORGAN), 1889, T., 606.  
**Benzeneazo- $\beta$ -naphthyl benzoate**, its reduction, and its *m*-nitro-derivative (MELDOLA and MORGAN), 1889, T., 115.  
**Benzeneazo- $\alpha$ - and - $\beta$ -naphthyl ethylates**, nitration of (MELDOLA and MORGAN), 1889, T., 608.  
**Benzeneazo- $\alpha$ -naphthyl phenylamine** (FISCHER and HEPP), 1890, A., 912.  
**Benzeneazo- $\beta$ -naphthyl phenylamine** (HENRIQUES), 1885, A., 168; (ZINCKE and LAWSON), 1887, A., 730.

## AZO-COMPOUNDS—

- Benzeneazo- $\alpha$ -naphthyl-*p*-tolylamine** (FISCHER and HEPP), 1890, A., 912.  
**Benzeneazo- $\beta$ -naphthyltolylamine** (MATTHES), 1890, A., 992; (FISCHER), 1892, A., 1476.  
**Benzeneazonitriline**, nitro- (ODDO), 1891, A., 554.  
**Benzene-*o*-azonitrobenzene** (JANOVSKY), 1886, A., 794.  
**Benzene-*p*-azonitrobenzene** (JANOVSKY and ERB), 1885, A., 894; 1887, A., 478.  
 reduction of (JANOVSKY), 1885, A., 789.  
 chloro- (DAHME and GASIOROWSKI), 1887, A., 248.  
**Benzeneazonitrobenzenes** (JANOVSKY), 1883, A., 867; 1887, A., 663.  
**Benzeneazo-*d*initrobenzene**, *o*- and *m*-nitro- (KLINGER and ZUURDEEG), 1890, A., 762.  
*p*-nitro- and *o-p*-*d*initro- (WILLGERODT and HERMANN), 1890, A., 1259.  
**Benzeneazonitrosobenzene-*p*-azochlorobenzene**, nitro-*d*initroso- (WILLGERODT and BÖHM), 1891, A., 907.  
*d*initro-*n*itroso- (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.  
**Benzeneazonitrobenzeneazodinitro-*n*itrosobenzene**, chloronitro- (WILLGERODT), 1890, A., 1119.  
**Benzene-*p*-azonitrobenzene**, *p*-nitro-, reduction of (JANOVSKY), 1885, A., 789.  
**Benzeneazonitrosobenzeneazotri-*n*itrobenzene**, chloro- (WILLGERODT and BÖHM), 1891, A., 907.  
**Benzeneazonitrosoreosorcinol** (v. KOSTANECKI), 1889, A., 137.  
**Benzeneazo-*ar*-octohydro- $\alpha$ -naphthoquinoline** (BAMBERGER and STETTENHEIMER), 1891, A., 1261.  
**Benzeneazophenetoil**. See Ethoxyazobenzene.  
**Benzeneazophenetoilsulphonic acid** (FEER and MÜLLER), 1889, A., 258.  
**Benzeneazophenol**, chloro- (HEUMANN and OECONOMIDES), 1887, A., 664.  
*p*-nitro-, and *p*-amido- (MELDOLA), 1885, T., 658, 659.  
 See also Hydroxyazobenzene.  
**Benzeneazophenylbiazalone** (FREUND and KUH), 1890, A., 1441.  
**Benzeneazophenyldimethylpyrazole** [4:1:3:5-] (BEYER and CLAISEN), 1888, A., 828.

## AZO-COMPOUNDS—

- Benzeneazophenylenediamine** and homologues, formation of (FRISWELL and GREEN), 1885, T., 923.  
*amido-* (JANOVSKY), 1885, A., 1131.  
**Benzeneazo-*m*-phenylenediamine.**  
 See Chrysoidine.  
**Benzeneazophenylenediamineazo-benzene** (GRIESS), 1883, A., 1102.  
**Benzeneazophenylenediamineazobenzenesulphonic acid** (*azosulphobenzenephenylenediaminebenzene*) (GRIESS), 1883, A., 1103.  
**Benzeneazophenylenediamineazobenzoic acid** (GRIESS), 1883, A., 1103.  
**Benzeneazophenylenediamineazotoluenes** (GRIESS), 1883, A., 1102, 1103.  
**Benzeneazophenylic phosphate** (HEUMANN and PAGANINI), 1891, A., 301.  
**Benzeneazophenylisooxalone** (CLAISEN and ZIEDEL), 1891, A., 468.  
**Benzeneazophenylthio-, dithio-, and  $\psi$ -thio-biazolones** (FREUND and KUH), 1890, A., 1440.  
**Benzeneazopropylene** (*azophenylallyl*) (FISCHER and KNOEVENAGEL), 1887, A., 933.  
**Benzeneazoquinoline** (EPHRAIM), 1891, A., 1509.  
**Benzeneazoresorcinol**, and its purification (MEYER and KREIS), 1883, A., 982.  
*p*-nitro-, and *p*-amido- (MELDOLA), 1885, T., 660.  
 nitroso- (v. KOSTANECKI), 1889, A., 137.  
*p*-**Benzeneazoresorcinol** (GOLDSCHMIDT and POLLAK), 1892, A., 977.  
**Benzeneazoresorcinylic mono- and dimethyl ethers, *o*- and *p*-** (BECHHOLD), 1889, A., 1155.  
 conversion of, into hydroxyquinol-derivatives (BECHHOLD), 1889, A., 1155.  
**Benzeneazo- $\beta$ -resorecylic acid** (LIMPRICHT), 1891, A., 1037.  
**Benzeneazosalicylamide and benzeneazosalicylic aldehyde** (TUMMELEY), 1889, A., 780.  
**Benzeneazosalicylic acid** (v. KOSTANECKI and ZIBELL), 1891, A., 1038.  
 and its derivatives (LIMPRICHT), 1891, A., 1036.  
*p*-amido-, and *p*-nitro- (MELDOLA), 1885, T., 666, 667.  
 nitro- (GEBER), 1889, A., 780.

## AZO-COMPOUNDS—

- Benzeneazotetrahydro- $\alpha$ -naphthaquinoline** (BAMBERGER and STETTENHEIMER), 1891, A., 1259.  
**1'-Benzeneazotetrahydro- $\beta$ -naphthaquinoline** (BAMBERGER and MÜLLER), 1891, A., 1510.  
**Benzeneazo-*ar*-tetrahydro- $\alpha$ -naphthol** (BAMBERGER and BORDT), 1890, A., 509.  
**Benzeneazo- $\alpha$ -tetrahydronaphthylamine** (BAMBERGER and BORDT), 1889, A., 715.  
**Benzeneazothymol** (MAZZARA and POSSETTO), 1885, A., 894.  
 constitution of (MAZZARA), 1885, A., 1131; 1890, A., 884.  
**Benzeneazo-*p*-toluene** (SCHULTZ), 1884, A., 903.  
**Benzeneazotriphenylpyrazole** [4:1:3:5-] (BEYER and CLAISEN), 1888, A., 828; (DE NEUFVILLE and v. PECHMANN), 1891, A., 319.  
**Benzeneazoxazole** (RUSSANOFF), 1892, A., 322.  
**Benzeneazoximidobenzene, tetranitro-** (WILLGERODT), 1892, A., 1454.  
**Benzeneazo-*m*-xyleneazo- $\alpha$ - and - $\beta$ -naphthols, *p*-nitro-** (MELDOLA), 1883, T., 434.  
**Benzeneazo-*m*-xyleneazo- $\alpha$ - and - $\beta$ -naphtholsulphonic acid, *p*-nitro-** (MELDOLA), 1883, T., 435.  
**Benzeneazo-*m*-xyleneazophenol, *p*-nitro-** (MELDOLA), 1883, T., 435.  
**Benzeneazo-*m*-xyleneazoresorcinol, *p*-nitro-** (MELDOLA), 1883, T., 436.  
**Benzeneazo-*m*-xylenol** (GREVINGK), 1886, A., 348.  
**Benzeneazo-*o*-xylidine** (MENTON), 1891, A., 1205.  
**Benzeneazo-*m*-xylidine, *p*-amido- and *p*-nitro-** (MELDOLA), 1883, T., 428, 432.  
**Benzenebisazo-*o*- and -*m*-cresols** (NÖLTING and KOHN), 1884, A., 902.  
**Benzenebisazomethoxybenzene** (NÖLTING and KOHN), 1884, A., 902.  
**Benzenebisazo- $\alpha$ -naphthol** (NÖLTING and GRANDMOUGIN), 1891, A., 1076.  
**Benzenebisazoresorcinol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 1147.  
**Benzenebisazothymol**, constitution of (MAZZARA), 1890, A., 884.  
**Benzene-*p*-bromoxybenzene, nitro- and nitroso-derivatives of** (WILLGERODT and ELLON), 1891, A., 1362.  
**Benzene-*m*-chlorazoxybenzene, nitro-nitroso-** (WILLGERODT and MÜHE), 1892, A., 455.

## AZO-COMPOUNDS—

- Benzene-*p*-chlorodinitrazobenzene**, dinitronitroso- (WILLGERODT and BÖHM), 1891, A., 906.
- Benzenediazoacetanilide** (HEUSLER), 1892, A., 458.
- Benzenediazobenzylanilide**, dry decomposition of (HEUSLER), 1891, A., 555.
- Benzenediazoconiine** (WALLACH), 1887, A., 137.
- Benzenediazodimethylamide**, preparation of (HEUSLER), 1891, A., 556.
- Benzenediazonitrosodiphenylamine** (FISCHER and WACKER), 1888, A., 1286.
- Benzenediazonitrosophenyltolylamine** (REICHHOLD), 1890, A., 610.
- Benzenediazophenol** (WALLACH and SCHULZE), 1883, A., 533.
- Benzenediazopiperidine** (WALLACH), 1887, A., 137.  
dry decomposition of (HEUSLER), 1891, A., 555.
- Benzene-*p*-diazopiperidine**, fluoro- (WALLACH and HEUSLER), 1888, A., 362.  
nitro- (WALLACH), 1887, A., 131.
- Benzenediazoresorcinols**, isomeric (v. KOSTANECKI), 1889, A., 138.
- Benzenediazothiazole hydrate** (SCHATZMANN), 1891, A., 745.
- Benzenediazothymol** (MAZZARA and POSSETTO), 1885, A., 894.
- Benzenediazo-*p*-toluidide**, *p*-bromo- and *p*-chloro-, methylation of (MELDOLA and STREATFEILD), 1889, T., 433, 437; P., 98.
- Benzenylazosulphimecarbanilide** (TIEMANN), 1891, A., 558; (KOCH), 1891, A., 560.
- Benzenylazosulphimecarbo-*p*-bromo- and -nitroso-anilides** (KOCH), 1891, A., 561.
- Benzenylazosulphimecarbohydro- and -di-sulphides** (CRAYEN), 1891, A., 559.
- Benzenylazosulphimecarbothioethyl-ic ether** (CRAYEN), 1891, A., 560.
- Benzenylazoximeacetylenyl** (TIEMANN), 1890, A., 44.  
*p*-nitro- (WEISE), 1890, A., 46.
- Benzenylazoximeisocamenyl** (ZIMMER), 1890, A., 254.
- Benzenylazoximebenzenyl, *m*-amido-**, and its derivatives (SCHÖPFF), 1885, A., 1217.  
*m*-nitro-, and its derivatives (SCHÖPFF), 1885, A., 897, 1217.  
*p*-nitro- (WEISE), 1890, A., 45.

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- Benzenylazoximebenzenyl-*o*-carb-oxylic acid** and its salts (SCHULZ), 1885, A., 1219.
- Benzenylazoximeisobutenyl** (ZIMMER), 1890, A., 254.
- Benzenylazoximecarbinol** and its derivatives (FALCK), 1885, A., 1217.
- Benzenylazoximecarbo-*p*-toluidide** (KOCH), 1891, A., 561.
- Benzenylazoxime-ethenyl** (TIEMANN and KRÜGER), 1884, A., 1326.  
*m*-nitro- (SCHÖPFF), 1885, A., 897.  
*p*-nitro- (WEISE), 1890, A., 45.
- Benzenylazoximemethenylcarboxylic acid** (WURM), 1890, A., 258.
- Benzenylazoxime-*m*-nitrobenzenyl, *m*-nitro-** (STIEGLITZ), 1890, A., 256.
- Benzenylazoximephenylethenyl** (ZIMMER), 1890, A., 253.
- Benzenylazoximepropenyl** (ZIMMER), 1890, A., 254.
- Benzenylazoximepropenyl- $\alpha$ -carb-oxylic acid** and its salts (SCHULZ), 1885, A., 1219.
- Benzenylazoximesalicyl** (ZIMMER), 1890, A., 254.
- Benzidineazo-dyes**, colouring properties of (MÖHLAU), 1886, A., 947.
- Benzoylbenzeneazoacetone** (GOLDSCHMIDT and POLLAK), 1892, A., 977.
- Benzoylchlorobenzeneazocresols** (GOLDSCHMIDT and POLLAK), 1892, A., 975.
- Benzoylphenylazimethylene** (CURTIUS and THUN), 1891, A., 1357.  
reactions of (CURTIUS and LANG), 1892, A., 451.
- Benzylamidobenzeneazo- $\alpha$ - and - $\beta$ -naphthols** (MELDOLA and COSTE), 1889, T., 596.
- Benzylazimidobromobenzene** (ZINCKE and ARZBERGER), 1889, A., 502.
- Benzylidiaoamidobenzene** (FRISWELL and GREEN), 1886, T., 749.
- Benzylideneamidazoobenzene** (BERJU), 1884, A., 1149.
- Benzylidene-*o*-amidoazotoluene** (GOLDSCHMIDT and ROSELL), 1890, A., 616.
- Benzylmalonic azimide** (RUHEMANN and MORRELL), 1892, T., 796.
- Benzylmethylbromobenzeneazamonium iodide** (ZINCKE and ARZBERGER), 1889, A., 502.
- Bisazobenzene** (NIETZKI and DIESTERWEG), 1888, A., 1082.  
chloronitro-, chloronitronitroso-, and nitronitroso-derivatives of (WILLGERODT and MÜHE), 1892, A., 455, 456.



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**Bisazobenzene-*p*-chlorophenylhydrazine**, *tetranitronitroso-* (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.

**Bisazobenzene-phenylhydrazine**, *pentanitro-* (WILLGERODT and MÜHE), 1892, A., 456.

**Bisazo-compounds** (NIETZKI and DIESTERWEG), 1888, A., 1082.  
of  $\alpha$ -naphthol, molecular change in the formation of (NÖLTING and GRANDMOUGIN), 1891, A., 1075.

**Bisbenzeneazoacetone** (v. PECHMANN and JENISCH), 1892, A., 161.

**Bis-*o*- and -*p*-diazoanisolemethyl- and -ethyl-amines** (GOLDSCHMIDT and BADL), 1889, A., 774.

***m*-Bisdiazobenzene compounds** (GRIESS), 1886, A., 459.

**Bisdiazobenzene-allylamine, -ethylamine, and -methylamine** (GOLDSCHMIDT and BADL), 1889, A., 774.

**Bis-*p*-diazotolueneallylamine** (GOLDSCHMIDT and BADL), 1889, A., 775.

**Bis-*p*-diazotoluene-ethylamine** (GOLDSCHMIDT and HOLM), 1888, A., 686.

**Bis-*p*-diazotoluene-methylamine** (GOLDSCHMIDT and BADL), 1889, A., 774.

**Bisdiethylazimethylene** (CURTIUS and THUN), 1891, A., 1355.

**Bisdimethylazimethylene** (CURTIUS and THUN), 1891, A., 1355.

**Bisdiphenylazimethylene** (CURTIUS and RAUTERBERG), 1891, A., 1359.

**Bispropylmethylazimethylene** (CURTIUS and THUN), 1891, A., 1355.

**Bismethylphenylazimethylene** (CURTIUS and THUN), 1891, A., 1355.

**Bisphenylazophenol** (v. BAAYER and KOCHENDÖRFER), 1889, A., 1162.

**Carbamidoazobenzene**, and thio- (BERJU), 1884, A., 1149; 1885, A., 660.

**Carbanilido-amidoazobenzene**, **Carbanilido-amidoazotoluene**, **Carbanilido-benzeneazo- $\beta$ -naphthylamine**, **Carbanilido-hydroxyazobenzene** and **Carbanilidophenolbisazobenzene** (GOLDSCHMIDT and ROSELL), 1890, A., 614.

**Carboxybenzeneazoacetoacetic acid** (*azoacetoaceticbenzoic acid*) (GRIESS), 1885, A., 788.

***m*-Carboxybenzenylazoximebenzenyl** (MÜLLER), 1886, A., 803.

**Carboxybenzenylazoximepropenyl- $\omega$ -carboxylic acids**, *m*- and *p*- (MÜLLER), 1886, A., 803.

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**Carboxybenzenylazoxime-ethenyl**, *m*- and *p*- (MÜLLER), 1886, A., 802.

**Carvacrolbisdiazotriphenylmethane** (MAZZARA), 1886, A., 59.

**Cinnamenylazoximebenzenyl** (WOLFF), 1886, A., 798.

**Cinnamenylazoxime-ethenyl** (WOLFF), 1886, A., 798.

**Cinnamenylazoximepropenyl- $\omega$ -carboxylic acid** (WOLFF), 1886, A., 799.

**"Cinnamiediazoacetic acid"** (BUCHNER), 1888, A., 1275.

**Cinnamoylphenylazimide**, formation and reduction of (RUHEMANN), 1892, T., 282.

**Cresolbisazotoluenes**, *o*- and *p*- (NÖLTING and WERNER), 1891, A., 212.

**$\psi$ -Cumeneazo- $\psi$ -cumene**. See Azo- $\psi$ -cumene.

**$\psi$ -Cumeneazocumenol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 1147.

**Cumeneazo- $\beta$ -naphthol-mono- and -di-sulphonic acids**, spectrum of (HARTLEY), 1887, T., 187.

**$\psi$ -Cumeneazophenol** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.

**$\psi$ -Cumenediazopiperidide** (WALLACH and HEUSLER), 1888, A., 362.

**$\psi$ -Cumeneazoresorcinol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 736, 1147; (v. KOSTANECKI), 1889, A., 137.

**nitroso-** (v. KOSTANECKI), 1889, A., 137.

**$\psi$ -Cumeneazoresorcinolazocumene** (LIEBERMANN and v. KOSTANECKI), 1884, A., 736.

**$\psi$ -Cumenebisazoresorcinol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 1147.

**Cumylenediazosulphide** (JACOBSON and NEY), 1889, A., 772.

**Cyanazocamphene** (TANRET), 1888, A., 720.

**Cymeneazocymene** (*azocymene*) (SCHUMOFF), 1888, A., 469.

**Dianilido-*o*-diazothiole** (HECTOR), 1889, A., 872; 1890, A., 526.

**Diazoacetamide** (CURTIUS), 1884, A., 988; 1885, A., 883.

**$\psi$ -Diazoacetamide** (CURTIUS), 1885, A., 883.

**Diazoacetates**, ethereal, action of, on ethereal salts of unsaturated acids (BUCHNER), 1888, A., 1274.

**Diazoacetic acid**, and its salts (CURTIUS), 1885, A., 883.

## AZO-COMPOUNDS—

**Diazoamides**, normal and mixed (MELDOLA and STREATFEILD), 1890, T., 785; P., 139.

*m*-**Diazoamidobenzamide** (SCHULZE), 1889, A., 778.

**Diazoamidobenzene** (*diazobenzeneanilide*) (FISCHER), 1884, A., 1014. preparation of (STAEDEL and BAUER), 1886, A., 943. conditions of formation of (FRISWELL and GREEN), 1885, T., 919; P., 102.

constitution of (FRISWELL and GREEN), 1886, T., 746; P., 229.

dry decomposition of (HEUSLER), 1891, A., 555.

action of phenol on (HEUMANN and OECONOMIDES), 1887, A., 480.

action of *p*-toluidine on (GOLDSCHMIDT and BARDACH), 1892, A., 978.

relation of, to amidoazobenzene (FRISWELL and GREEN), 1885, T., 917; P., 102; 1886, T., 746; P., 229; 1887, P., 26.

Wallach's explanation of the isomeric transformation of, into amidoazobenzene (MELDOLA), 1887, P., 27.

formation of *diamidoazobenzene* and its homologues from (FRISWELL and GREEN), 1885, T., 923.

**Diazoamidobenzene** (*diazobenzeneanilide*), *p*-bromo-, and its methyl derivative (MELDOLA and STREATFEILD), 1889, T., 435.

*tri*- and *hexa*-bromo- (SILBERSTEIN), 1883, A., 661.

*p*-bromo-*m*- and *p*-nitro- (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.

ethylation and methylation of (MELDOLA and STREATFEILD), 1889, T., 420, 424.

*di*bromodinitro- (MELDOLA and STREATFEILD), 1888, T., 669.

*m*- and *p*-*dichloro*-, action of *p*-toluidine on (GOLDSCHMIDT and BARDACH), 1892, A., 978.

*p*-*dichloro*-, and its ethyl derivative (MELDOLA and STREATFEILD), 1888, T., 670.

*m*-nitro- (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.

*m*-dinitro- (MELDOLA and STREATFEILD), 1887, T., 107.

*p*-dinitro- (MELDOLA and STREATFEILD), 1886, T., 626; 1887, T., 102.

## AZO-COMPOUNDS—

**Diazoamidobenzene** (*diazobenzeneanilide*), *m*- and *p*-dinitro-, methylation of (MELDOLA and STREATFEILD), 1888, T., 666.

*p*-*m*-dinitro-, and its alkyl derivatives (MELDOLA and STREATFEILD), 1889, T., 415.

**Diazoamidobenzene- $\beta$ -naphthalene** (*diazobenzene $\beta$ naphthylamide*) *p*-bromo- (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.

**Diazoamidobenzenetoluene** (*diazobenzene $\alpha$ toluidide*), *p*-bromo- and *m*-nitro- (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.

**Diazoamidobromo- $\beta$ -phenylpropionic acid** (GABRIEL), 1883, A., 195.

**Diazoamido-*m*- and *p*-chlorobenzene-*p*-toluenes** (*diazochlorobenzene-*p*-toluidides*) (GOLDSCHMIDT and BARDACH), 1892, A., 979.

**Diazoamido-compounds** (NÖLTING and BINDER), 1885, A., 385; 1888, A., 271; (MELDOLA and STREATFEILD), 1886, P., 263; 1887, T., 102, 434, 448; P., 50; 1888, T., 664; P., 63; (WALLACH), 1887, A., 137; (FISCHER and WIMMER), 1887, A., 819; (GOLDSCHMIDT and MOLINARI), 1888, A., 1283; (GOLDSCHMIDT and BADL), 1889, A., 774; (GOLDSCHMIDT and BARDACH), 1892, A., 977.

constitution of (MELDOLA and STREATFEILD), 1887, T., 434, 448; P., 50; (MELDOLA), 1887, A., 818. cryoscopic experiments with (GOLDSCHMIDT), 1891, A., 1211.

dry decomposition of (HEUSLER), 1891, A., 555.

action of acetic anhydride on (HEUSLER), 1892, A., 458.

action of aniline hydrochloride on (GOLDSCHMIDT and BARDACH), 1892, A., 979.

action of phenol on (HEUMANN and OECONOMIDES), 1887, A., 664.

conversion of, into azoamido-compounds (GOLDSCHMIDT and BARDACH), 1892, A., 977.

ethylene derivatives of (MELDOLA and STREATFEILD), 1892, P., 119. of ethyl-*p*-toluidine. (GASTIGER), 1885, A., 381.

of the paraffin series (CURTIUS), 1884, A., 987.

mixed, new method of determining the constitution of (GOLDSCHMIDT and HOLM), 1888, A., 685.

## AZO-COMPOUNDS—

- Diazoamido-compounds**, mixed, synthesis of alkyl heterogenous (MELDOLA), 1889, T., 610; P., 127.  
 isomerism of the alkyl derivatives of (MELDOLA and STREATFEILD), 1889, T., 412; P., 98.  
 nitrated (NIEMENTOWSKI), 1890, A., 39.  
 dinitro-, decomposition of, by cold hydrochloric acid (MELDOLA and STREATFEILD), 1887, T., 436.  
**Diazoamido- $\psi$ -cumene**, action of *p*-toluidine on (GOLDSCHMIDT and BARDACH), 1892, A., 978.  
**Diazoamido- $\psi$ -cumene-*p*-toluene** (GOLDSCHMIDT and BARDACH), 1892, A., 979.  
**Diazoamidodiphenylmethane** (MANNS), 1889, A., 261.  
**Diazoamidonitrobenzene** (NIEMENTOWSKI), 1890, A., 39.  
**Diazoamidonitrotoluene** (NIEMENTOWSKI), 1890, A., 39.  
**Diazoamido-*o*-toluene** (*diazotoluene-toluidide*) (FISCHER and WIMMER), 1887, A., 819; (HEUSLER), 1892, A., 459.  
**Diazoamido-xylene** (*diazoxylene-xylidide*) (FISCHER and WIMMER), 1887, A., 819.  
***o*-Diazoazotoluene** (*diazotolueneazotoluene*), action of  $\alpha$ - and  $\beta$ -naphthols and  $\beta$ -naphthylamine on (ZINCKE and LAWSON), 1887, A., 731.  
 derivatives of (ZINCKE and LAWSON), 1886, A., 795.  
***p*-Diazoazotoluene salts** (ZINCKE and LAWSON), 1887, A., 732.  
***p*-Diazoazotolueneimide** (ZINCKE and LAWSON), 1887, A., 732.  
***o*-Diazoazobenzaldehyde** (ELIASBERG and FRIEDLÄNDER), 1892, A., 1106.  
**Diazobenzene** (SANDMEYER), 1890, A., 1115.  
 action of, on acetonedicarboxylic acid (v. PECHMANN and JENISCH), 1892, A., 161.  
 action of phenol on (HIRSCH), 1891, A., 437.  
 acid salts of, action of alkalis on (CURTIUS), 1891, A., 55.  
 salts, action of stannous chloride on (CULMANN and GASIOROWSKI), 1889, A., 1156.  
*perbromide* (SAUNDERS), 1892, A., 316.

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- Diazobenzene chloride**, action of acetone on (BAMBERGER and WULZ), 1891, A., 1450.  
 action of benzaldoxime on (MAI), 1892, A., 163.  
 action of hydroxylamine on (MAI), 1892, A., 710.  
 action of sodium thiosulphate on (PURGOTTI), 1890, A., 1419.  
 reaction of (ODDO), 1891, A., 553.  
 nitrate, action of potassium ferrocyanide on (LOCHER), 1888, A., 589.  
 stannochloride (GRIESS), 1885, A., 789.  
 sulphates, *o*- and *m*- (REMSEN and GRAHAM), 1889, A., 975.  
**Diazobenzene**, amido- (GRIESS), 1884, A., 1148.  
*tribromo*-, nitrate and other salts of (SILBERSTEIN), 1883, A., 660.  
**Diazobenzeneamidocarbazole** (ZATTI and FERRATINI), 1892, A., 617.  
**Diazobenzeneanilide**. See **Diazoamidobenzene**.  
**Diazobenzeneazobenzene**, combination of, with aniline (NIETZKI and DIESTERWEG), 1888, A., 1082.  
**Diazobenzeneazobenzene-mono- and -di-sulphonic acids** (GRIESS), 1883, A., 182.  
**Diazobenzenebenzamidine** (PINNER), 1889, A., 1005.  
**Diazobenzenebenzylamide** (GOLDSCHMIDT and HOLM), 1888, A., 685.  
**Diazobenzenebenzylanilide** (FRISWELL and GREEN), 1886, T., 749.  
**Diazobenzene-*p*-bromodiphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.  
**Diazobenzene-*p*-bromophenyl-*p*-tolylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.  
**Diazobenzeneecumylamide** (GOLDSCHMIDT and GESSNER), 1889, A., 773.  
**Diazobenzenediphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1283.  
**Diazobenzene-*p*-ditolylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.  
**Diazobenzene-ethyl- $\beta$ -tetrahydronaphthylamide** (BAMBERGER and MÜLLER), 1889, A., 889.  
**Diazobenzene-ethyl-*p*-toluidide** (NÖLTING and BINDER), 1888, A., 273.



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- Diazobenzeneglyoxaline** (RUNG and BEHREND), 1892, A., 1493.
- Diazobenzeneimide**, action of stannous chloride on (CULMANN and GASIOROWSKI), 1889, A., 1157.
- tribromo-** (SILBERSTEIN), 1883, A., 661.
- p*-nitro-** (CULMANN and GASIOROWSKI), 1889, A., 1157.
- Diazobenzenemethylanilide** (FRISWELL and GREEN), 1886, T., 748; (NÖLTING and BINDER), 1888, A., 273.
- Diazobenzene-*o*- and -*p*-methylbenzylamides** (KRÖBER), 1890, A., 969.
- Diazobenzenenaphthylamide**, ***p*-bromo-** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- Diazobenzene- $\beta$ -naphthylamine**. See **Benzeneazo- $\beta$ -naphthylamine**.
- Diazobenzene- $\beta$ -naphthylphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- Diazobenzene-*m*- and -*p*-nitrodi-phenylcarbamide**, ***m*- and -*p*-bromo-** (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.
- Diazobenzene-*m*-nitrophenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.
- Diazobenzenenitrosodimethylaniline** (FISCHER and WACKER), 1889, A., 702.
- Diazobenzenephenyl-*p*-tolylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1283.
- Diazobenzenepiperazine** (SCHMIDT and WICHMANN), 1892, A., 211.
- Diazobenzenepiperidide** (NÖLTING and BINDER), 1888, A., 273.
- p*-Diazobenzenesulphonic acid**, action of, on primary amido-compounds, and on isomeric toluidines (GRIESS), 1883, A., 181.
- behaviour of aldehyde, glucose, peptone, albuminous bodies, and acetone towards (PETRI), 1884, A., 1322.
- o*-nitro-** (NIETZKI and LERCH), 1889, A., 144.
- Diazobenzene- $\alpha$ -tetrahydronaphthylamide** (BAMBERGER and BAMMANN), 1889, A., 784.
- Diazobenzenetetrahydroquinolide** (NÖLTING and BINDER), 1888, A., 273.
- Diazobenzenetoluidide**, ***p*-bromo-** and ***m*-nitro-** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.

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- Diazobenzene-*p*-tolylphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- 4-Diazobenzidine-2-2'-disulphonic acid**, **4'-amido-** (LIMPRICHT), 1891, A., 929.
- Diazobenzimide**, ***m*-amido-**, and its derivatives (GRIESS), 1885, A., 789.
- 6-Diazobenzoic acid**, **3-amido-**, and its derivatives (GRIESS), 1884, A., 1148.
- Diazobenzoic acids**, action of alcohols on (GRIESS), 1888, A., 588.
- Diazobenzylamidobenzene**, ***m*- and -*p*-dinitro-** (MELDOLA and STREATFEILD), 1887, T., 112, 113.
- Diazodibromobenzene sulphate** (HEINICHEN), 1890, A., 165.
- Diazo-*p*-bromobenzenemethyl-*p*-toluidide**, combination of diazo- $\beta$ -naphthalenemethyl-*p*-toluidide, and of diazo-*m*-nitrobenzenemethyl-*p*-toluidide with (MELDOLA and STREATFEILD), 1890, T., 793, 797.
- Diazoisobutylbenzene**, action of stannous chloride on (CULMANN and GASIOROWSKI), 1889, A., 1157.
- o*-Diazocinnamic acid**, hydrochloride and nitrate of (FISCHER and KUZEL), 1884, A., 441.
- p*-Diazocinnamic acid**, decomposition of (GABRIEL), 1883, A., 196.
- Diazo-compounds** (GRIESS), 1883, A., 180, 1102; 1884, A., 1148; 1885, A., 788; 1887, A., 817; 1888, A., 588, 826; (WALLACH), 1883, A., 584; 1887, A., 40, 137.
- constitution of (MELDOLA and STREATFEILD), 1888, T., 664; P., 63.
- thermochemistry of (VIGNON), 1888, A., 774.
- molecular weights of (GOLDSCHMIDT), 1891, A., 193.
- action of alcohol on (HALLER), 1884, A., 1322; (REMSEN), 1885, A., 525.
- action of finely divided copper on (GATTERMANN, HAUSKNECHT, CANTZLER and EHRHARDT), 1890, A., 970.
- action of, on hydroxybenzoic acids (ZIBELL), 1891, A., 1473.
- action of oximes on (MAI), 1892, A., 163, 1079.
- application of, to the detection of organic matter in water (GRIESS), 1888, A., 993.

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- Diazo-compounds**, decomposition of (REMSEN and ORNDORFF), 1888, A., 268; (REMSEN and GRAHAM), 1889, A., 975.
- decomposition of, by alcohol (v. HOFMANN), 1884, A., 1315; (v. WROBLEWSKI), 1885, A., 257; (REMSEN and PALMER), 1887, A., 136.
- decomposition of some, by formic and acetic acids (ORNDORFF), 1889, A., 45.
- double decompositions of (ODDO), 1891, A., 554.
- velocity of decomposition of, by water (MULLER and HAUSER), 1892, A., 768.
- stability of, in aqueous solution (HIRSCH), 1891, A., 554.
- synthesis by means of (HIRSCH), 1891, A., 437; 1892, A., 1198.
- chlorides of, action of stannous salts on the (GASIOROWSKI and WAJSS), 1885, A., 525.
- mixed (GOLDSCHMIDT and HOLM), 1888, A., 685.
- of the aromatic series (ODDO), 1891, A., 553.
- of *s*-tribromaniline (SILBERSTEIN), 1883, A., 660.
- of the fatty series (CURTIUS), 1884, A., 987; 1885, A., 883.
- constitution of (CURTIUS), 1889, A., 586; 1891, A., 39.
- of the thiazole series (WOHMANN), 1891, A., 225.
- Diazo-*m*- and -*p*-chlorobenzene-*p*-toluidides** (GOLDSCHMIDT and BARDACH), 1892, A., 979.
- Diazoeresol compounds** (NÖLTING and KOHN), 1884, A., 900.
- Diazo-*o*-cymenesulphonic acid** (ERRERA), 1891, A., 1067.
- Diazodeoxybenzoin chloride** (NEY), 1888, A., 1197.
- o*-Diazodibenzylamine** (LELLMANN and ARNOLD), 1892, A., 890.
- Diazodiphenylamine sulphate** (IKUTA), 1888, A., 467.
- Diazoethylamidobenzene, *m*-dinitro-** (MELDOLA and STREATFEILD), 1887, T., 108.
- p*-dinitro-** (MELDOLA and STREATFEILD), 1887, T., 630.
- Diazoethylresorcinol chloride** (PUKALL), 1887, A., 661.
- Diazo-group**, introduction of, into so-called aromatic para-compounds (GRIESS), 1884, A., 1013.

## AZO-COMPOUNDS—

- Diazoguanidine salts** (THIELE), 1892, A., 1298.
- Diazohippurylamide** (CURTIUS), 1892, A., 113.
- Diazo-hydrocarbons**, action of stannous chloride on salts of (CULMANN and GASIOROWSKI), 1889, A., 1156.
- Diazo-hydroxyquinaldine anhydride** (CONRAD and LIMPACH), 1888, A., 1110.
- Diazoimido-hydrocarbons**, some reactions of (CULMANN and GASIOROWSKI), 1889, A., 1156.
- Diazomethylamidobenzenesulphonic acid**, sodium salt of (BERNTHSEN and GOSKE), 1887, A., 666.
- Diazomethyluracil derivatives** (BEHREND), 1888, A., 809.
- $\beta$ -Diazonaphthalene nitrate**, decomposition of, with alcohol (ORNDORFF and KORTWRIGHT), 1891, A., 1073.
- sulphate, action of stannous chloride on (CULMANN and GASIOROWSKI), 1889, A., 1157.
- $\beta$ -Diazonaphthalenebenzylamide** (GOLDSCHMIDT and HOLM), 1888, A., 685.
- $\beta$ -Diazonaphthalene-*p*-bromodiphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.
- Diazonaphthaleneimide** (FISCHER), 1886, A., 555.
- Diazo- $\beta$ -naphthalenemethyl-*p*-toluidide**, combination of, with diazo-*p*-bromobenzenemethyl-*p*-toluidide (MELDOLA and STREATFEILD), 1890, T., 797.
- sulphates, decomposition of, with alcohol (ORNDORFF and KORTWRIGHT), 1891, A., 1073.
- $\beta$ -Diazonaphthalene- $\beta$ -naphthylamine** and its derivatives (LAWSON), 1885, A., 1238.
- Diazonaphthalenes**, nitro-, salts of, decomposition of, with alcohol (ORNDORFF and CAUFFMAN), 1892, A., 622.
- Diazonaphthalenesulphonic acid** (FORSLING), 1887, A., 375, 963.
- Diazonaphthalenesulphonic acid [1:2]** (CLEVE), 1892, A., 345.
- Diazonaphthalenesulphonic acids  $\delta$ - and  $\gamma$ -** (CLEVE), 1889, A., 155.
- $\alpha\alpha$ -Diazonaphthalenesulphonic acids**, isomeric (ERDMANN), 1889, A., 156.
- Diazonaphtholsulphonic acid** (SEIDEL), 1892, A., 721.

## AZO-COMPOUNDS—

- Diazonitrobenzene chlorides**, decomposition of, by hydrochloric acid (MELDOLA and STREATFEILD), 1887, T., 106.
- Diazo-*m*- and -*p*-nitrobenzene-ethyl-*p*-toluidides** (NÖLTING and BINDER), 1888, A., 273.
- Diazo-*m*-nitrobenzenemethyl-*p*-toluidide**, combination of, with diazo-*p*-bromobenzenemethyl-*p*-toluidide (MELDOLA and STREATFEILD), 1890, T., 793.
- m*-Diazo-*p*-nitrobenzenesulphonic acid** (EGER), 1889, A., 708.
- Diazonitro- $\psi$ -cumesulphonic acid** (MAYER), 1887, A., 953.
- Diazoisonitrosomethyluracil** (BEHREND), 1888, A., 809.
- p*-Diazonitroso-oxindole chloride** (MEYER), 1886, A., 64.
- m*-Diazophenetoil and its derivatives** (WAGNER), 1885, A., 1212.
- p*-Diazophenol, *di-m*-bromo-** (SILBERSTEIN), 1883, A., 660.
- m*-nitro-** (HÄHLE), 1891, A., 431.
- Diazophenols**, compounds from  $\beta$ -naphthylamine and (SACHS), 1886, A., 235.
- Diazophenolsulphonic acid, chloro-** (KALLREPP), 1886, A., 1019.
- trichloro-*** (LAMPERT), 1886, A., 617.
- Diazo-reaction** (GATTERMANN, HAUSKNECHT, CANTZLER, and EHRHARDT), 1890, A., 971.
- Diazoresorcinol and its derivatives** (BRUNNER and KRAEMER), 1884, A., 1333; (EHRlich), 1888, A., 145; (NIETZKI, DIETZE, and MAECKLER), 1890, A., 156.
- Diazoresorufin and its derivatives** (FÈVRE), 1883, A., 733; (BRUNNER and KRAEMER), 1884, A., 1333; (EHRlich), 1888, A., 145; (NIETZKI, DIETZE, and MAECKLER), 1890, A., 156.
- Diazo-salt-group and a phenol-residue**, intramolecular transformation between (LELLMANN and BOYE), 1890, A., 1116.
- Diazo-salts**, anhydrous, preparation of (KNOEVENAGEL), 1891, A., 54.
- of amido-3'-hydroxyquinoline**, action of, on phenols and tertiary bases (RIEMERSCHMIED), 1883, A., 1148.
- Diazosuccinic acid and its derivatives** (CURTIUS and KOCH), 1885, A., 885; 1887, A., 33; 1889, A., 376.
- p*-Diazo-*o*-sulphobenzoic acid** (HEDRICK), 1888, A., 280.

## AZO-COMPOUNDS—

- Diazosulphonic acids**, improvement in Sandmeyer's reaction with (TOBIAS), 1890, A., 1149.
- Diazothiazole hydrate** (NÄR), 1891, A., 1515.
- Diazothio-dimethyl- and -diethyl-anilines** (BERNTHSEN), 1889, A., 775.
- Diazotised-*p*-bromaniline**, action of, on methyl- and ethyl-*m*- and -*p*-nitranilines (MELDOLA and STREATFEILD), 1889, T., 419, 428; P., 98.
- action of, on methyl-*p*-toluidine** (MELDOLA and STREATFEILD), 1889, T., 432; P., 98.
- p*-chloraniline**, action of, on methyl-*p*-toluidine (MELDOLA and STREATFEILD), 1889, T., 436; P., 98.
- m*-nitraniline**, action of, on methyl- and ethyl-*p*-bromanilines (MELDOLA and STREATFEILD), 1889, T., 425, 428; P., 98.
- action of, on *p*-nitraniline** (MELDOLA and STREATFEILD), 1887, T., 102.
- m*- and -*p*-nitranilines**, action of, on monamines (MELDOLA), 1883, T., 428, 440; 1884, T., 107, 112, 118.
- p*-nitraniline**, action of, on methyl- and ethyl-*p*-bromanilines (MELDOLA and STREATFEILD), 1889, T., 418; P., 98.
- Diazotoluene, *o*- and -*p*,** action of sodium sulphide on (PURGOTTI), 1890, A., 1420.
- o*-Diazotoluene salts**, action of stannous chloride on (CULMANN and GASIOROWSKI), 1889, A., 1156.
- p*-Diazotoluene chloride**, action of hydroxylamine on (MAI), 1892, A., 710.
- Diazotolueneazotoluene.** See Diazotoluene.
- Diazotoluenebenzylamide, *o*- and -*p*-** (GOLDSCHMIDT and HOLM), 1888, A., 685.
- p*-Diazotoluene-*p*-bromodiphenylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- p*-Diazotolueneecumylamide** (GOLDSCHMIDT and GESSNER), 1889, A., 773.
- p*-Diazotoluenedimethylamide** (GOLDSCHMIDT and BADL), 1889, A., 774.
- Diazotoluenedisulphonates** (HASSE), 1886, A., 150.
- p*-Diazotoluene-*p*-ditolylcarbamide** (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.



## AZO-COMPOUNDS—

- p*-Diazotoluene- $\beta$ -naphthylphenyl-carbamide (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- p*-Diazotoluene-*m*-nitrodiphenylcarbamide (GOLDSCHMIDT and MOLINARI), 1888, A., 1285.
- p*-Diazotoluenepheryl-*p*-tolylcarbamide (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- Diazotoluenetoluidide (*diazooamidotoluene*) (FISCHER and WIMMER), 1887, A., 819.
- p*-Diazotolylene-*o*-sulphonic acid (REMSEN and PALMER), 1887, A., 136.
- p*-Diazotolyethylanilide (NÖLTING and BINDER), 1888, A., 272.
- Diazo-*p*-tolyethyl-*p*-toluidide (NÖLTING and BINDER), 1888, A., 273.
- m*-Diazotriazoamidobenzene (GRIESS), 1888, A., 827.
- p*-Diazotriazobenzene (GRIESS), 1888, A., 826.
- Diazotriazobenzenesulphonic acid (LIMPRICHT), 1889, A., 398.
- m*-Diazotriazobenzoic acid (GRIESS), 1888, A., 827.
- b*-Diazo- $\alpha$ -truxillic acid (HOMANS, STELTZNER, and SUKOW), 1891, A., 1496.
- Diazouracil (BEHREND and ERNERT), 1880, A., 1241.
- Diazouracilcarboxylic acid (BEHREND and ERNERT), 1890, A., 1240.
- Diazovinylamine (BUCHNER and CURTIUS), 1886, A., 635.
- Diazoxybenzoic acid (GRIESS), 1887, A., 485.
- Diazoxylenesulphonic acids (NÖLTING and KOHN), 1886, A., 356; 1889, A., 611.
- Diazoxylenexylidide (*diazooamidoxylene*) (FISCHER and WIMMER), 1887, A., 819.
- Dibenzenzylazosulphime (v. HOFMANN and GABRIEL), 1892, A., 1109.
- Dibenzenyldiazoximeoxalene (WURM), 1890, A., 259.
- Diethylresorcinol-*o*- and -*p*-azoresorcinols (PUKALL), 1887, A., 662.
- Dihydroxydiphenyldimethyldiazobenzophenylmethane (MAZZARA), 1885, A., 904.
- Dimethylamidoazobenzene (*benzeneazodimethylaniline*) (BERJU), 1884, A., 1149.
- as an indicator in alkalimetry (FISCHER and PHILIPP), 1885, A., 1159.

## AZO-COMPOUNDS—

- Dimethylamidoazobenzene (*benzeneazodimethylaniline*), *p*-bromo- (GOLDSCHMIDT and BARDACH), 1892, A., 980.
- nitro-derivatives of (NÖLTING), 1888, A., 270.
- Dimethylamidoazobenzenesulphonic acid (NÖLTING and BAUMANN), 1885, A., 385.
- Dimethylamidoazotribromobenzene (*benzeneazodimethylaniline, tribromo-* (SILBERSTEIN), 1883, A., 661.
- Dimethylamidobenzeneazobenzenesulphonic acid (MÖHLAU), 1884, A., 1149.
- spectrum of (HARTLEY), 1887, T., 192.
- Dimethylamidobenzeneazodimethylaniline (NÖLTING and KOHN), 1885, A., 386; (BARBIER and VIGNON), 1888, A., 54.
- Dimethylamidobenzene- $\alpha$ -azonaphthalene (BISCHOFF), 1890, A., 1148.
- Dimethylamidobenzeneazotoluene, and its sulphonic acid (MÖHLAU), 1884, A., 1150.
- Dimethylanilineazobenzylpiperidine (LELLMANN and PEKRUN), 1891, A., 89.
- Dimethylazithane (CURTIUS and THUN), 1891, A., 1356.
- Dimethylazobenzene, tetranitro- (MERTENS), 1880, A., 1022.
- Dimethylbromobenzeneazammonium compounds (ZINCKE and ARZBERGER), 1889, A., 502.
- Dimethyltrichlorobromobenzeneazammonium iodide (ZINCKE and ARZBERGER), 1889, A., 502.
- Dimethylethylazimethylene (CURTIUS and THUN), 1891, A., 1355.
- Dimethylhexylazimethylene (CURTIUS and THUN), 1891, A., 1355.
- Diphenylazocarvacrol (MAZZARA), 1885, A., 1132.
- Diphenyl-*p*-azophenylene (v. BANDROWSKI), 1886, A., 1023; 1888, A., 269, 1081.
- Diphenylazothymol, constitution of (MAZZARA), 1885, A., 1131.
- Diphenylbisazonaphtharesorcinol (v. KOSTANECKI), 1890, A., 261.
- Diphenyldiisindoleazobenzenesulphonic acid (MÖHLAU), 1883, A., 343.
- Diphenyldiisindoleazotribromobenzene hydrochloride (MÖHLAU), 1883, A., 342.
- Diphenyldiisindoleazodibromophenol (MÖHLAU), 1883, A., 342.

## AZO-COMPOUNDS—

- Diphenyldimethylazimethylene** (CURTIUS and RAUTERBERG), 1891, A., 1359.
- Diphenylenebisazodimethylaniline** (REULAND), 1890, A., 167.
- Diphenylenebisazo- $\beta$ -naphthol** (REULAND), 1890, A., 167.
- Diphenylenebisazoresorcinol** (REULAND), 1890, A., 167.
- p*-**Diphenylhydrazohexamethylene** (V. BAEYER and NOYES), 1889, A., 1148.
- Diphenylmethylcinnamaldazimethylene** (CURTIUS and RAUTERBERG), 1891, A., 1360.
- Diphenylnaphthaleneazammonium hydroxide** and its salts (ZINCKE and LAWSON), 1887, A., 731.
- Diphenylpyrazoloneazobenzene** (KNORR and KLOTZ), 1887, A., 1121.
- Di-*o*- and -*p*-tolylldiamido-*o*-diazothioles** and their derivatives (HECTOR), 1890, A., 527.
- p*-**Ditriazobenzene** (GRIESS), 1888, A., 826.
- m*-**Ditriazobenzoic acid** (GRIESS), 1888, A., 827.
- m*-**Dixylyldiamido-*o*-diazothiole** (HECTOR), 1890, A., 528.
- Ethenylazoximebenzenyl** (NORDMANN), 1885, A., 239.
- Ethoxyazobenzene** (*benzeneazophenetoil*), base from (NÖLTING and WERNER), 1891, A., 211.
- p*-**Ethoxyazobenzene**, preparation, nature, and reduction of (JACOBSEN and FISCHER), 1892, A., 839.
- Ethoxyazobenzenesulphonic acid** (*benzeneazophenetoilsulphonic acid*) (FEER and MÜLLER), 1889, A., 258.
- Ethylamidoazobenzenesulphonic acid** (*benzeneazoethylanilinesulphonic acid*), sodium salt of (BERNTSEN and GOSKE), 1887, A., 666.
- Ethylazimidobenzene** (HEMPEL), 1890, A., 612.
- Ethylazimidotoluene** (NÖLTING and AET), 1888, A., 273.
- Ethyl azobenzene- $\alpha$ -methylphenylpyrroline- $\beta$ -carboxylate** (PAAL and SCHNEIDER), 1887, A., 274.
- azopyromellitate** (NEF), 1886, A., 64; 1887, A., 257; 1888, T., 443.
- azoxypropionate** (CURTIUS and KOCH), 1889, A., 376.
- benzeneazocamphocarboxylate** (HALLER), 1892, A., 1344.

## AZO-COMPOUNDS—

- Ethyllic benzenediazo- $\Delta^{1.4}$  and - $\Delta^{2.5}$  dihydroterephthalates** (V. BAEYER and V. BRÜNING), 1891, A., 1487.
- benzenediazoterephthalate** (V. BAEYER and BRÜNING), 1891, A., 1487.
- benzenylazoximemethenylcarboxylate** (WURM), 1890, A., 259.
- cinnamic diazoacetate** (BUCHNER), 1888, A., 1275.
- diazoacetate** and its derivatives (CURTIUS), 1884, A., 987.
- constitution of** (CURTIUS), 1889, A., 586.
- action of, on aromatic hydrocarbons** (BUCHNER and CURTIUS), 1885, A., 1207.
- diazobenzoate** (CURTIUS), 1891, A., 55.
- diazosuccinamate** and **diazosuccinates** (CURTIUS and KOCH), 1885, A., 885.
- diphenylazimethylenedicarboxylate** (CURTIUS and LANG), 1892, A., 453.
- methylthiazolecarboxylate diazohydrate** (WOHMANN), 1891, A., 225.
- $\beta$ -naphtholazophenyllutidinedicarboxylate** (LEPETIT), 1887, A., 1053.
- $\alpha$ -naphthylazoacetoacetate** (ODDO), 1891, A., 1381; 1892, A., 367.
- phenylazo-acetyl- and -benzoylpyruvates** (BEYER and CLAISEN), 1888, A., 829.
- phenyl- $\beta$ -azocrotonate** (BENDER), 1888, A., 53; (NEF), 1892, A., 143.
- triazooacetate** (CURTIUS and LANG), 1889, A., 370.
- Ethylpyrrolineazo- $\beta$ -naphthalene** (FISCHER and HEPP), 1886, A., 1042.
- Ethylpyrrolineazo-*p*-toluene** (FISCHER and HEPP), 1886, A., 1042.
- Ethylpyrrolinediazo-*p*-toluene** (FISCHER and HEPP), 1886, A., 1042.
- Glutarediazoximediethenyl** (BIEDERMANN), 1890, A., 126.
- p*-**Hexazobenzene** (GRIESS), 1888, A., 826.
- Hexazobenzoic acid** (GRIESS), 1888, A., 827.
- Hexazoxybenzene** (JANOVSKY and ERB), 1887, A., 479; (JANOVSKY), 1887, A., 664; (WILLGERODT), 1890, A., 1117.
- Homobenzenyl-**. See Tolenyl-.

## AZO-COMPOUNDS—

- Homo-*o*-phthalethylimidoazobenzene** (PULVERMACHER), 1887, A., 1111.  
**Homo-*o*-phthalimidoazobenzene** (GABRIEL), 1887, A., 726.  
**Homoterephthalenediazoximediethenyl** (ROSENTHAL), 1890, A., 147.  
**Homoterephthalenediazoximediethenyl** (ROSENTHAL), 1890, A., 147.  
**Hydroxyazobenzene** (*benzeneazophenol*), action of phosphoric chloride on (HEUMANN and PAGANINI), 1891, A., 301.  
*m*-**dinitro-** (KLINGER and PITSCHKE), 1886, A., 53.  
**Hydroxy-*p*-azobenzenesulphonic acid**, salts of (LIMPRICHT), 1891, A., 1037.  
**Hydroxyazo-compounds** (MEYER and KREIS), 1883, A., 982; (FISCHER and WIMMER), 1887, A., 819; (GOLDSCHMIDT and ROSELL), 1890, A., 614; (GOLDSCHMIDT and BRUBACHER), 1891, A., 1209.  
*o*-**Hydroxyazo-dyes**. See under Colouring matters.  
**3-Hydroxy-4-azo-1-methylquinoline** (NÖLTING and TRAUTMANN), 1891, A., 328.  
**Hydroxyazotoluidine** and its salts (LIMPRICHT), 1885, A., 975; (GRAEFF), 1885, A., 1128.  
*m*-**Hydroxybenzenylazoximebenzenyl** (SCHÖPF), 1885, A., 1217.  
*p*-**Hydroxybenzenylazoximebenzenyl** (KRONE), 1891, A., 700.  
*m*-**Hydroxybenzenylazoxime-ethenyl** (CLEMM), 1891, A., 700.  
*p*-**Hydroxybenzenylazoxime-ethenyl** (KRONE), 1891, A., 700.  
*m*-**Hydroxybenzenylazoximepropenyl- $\omega$ -carboxylic acid** (CLEMM), 1891, A., 699.  
*p*-**Hydroxybenzenylazoximepropenyl- $\omega$ -carboxylic acid** (KRONE), 1891, A., 700.  
*p*-**Hydroxy-*o*-tolenylazoximebenzenyl** (PASCHEN), 1892, A., 320.  
*p*-**Hydroxy-*m*-tolenylazoximebenzenyl** (GOLDBECK), 1892, A., 319.  
*o*-**Hydroxy-*p*-tolenylazoxime-ethenyl** (GOLDBECK), 1892, A., 319.  
*p*-**Hydroxy-*o*-tolenylazoxime-ethenyl** (PASCHEN), 1892, A., 321.  
*p*-**Hydroxytolenylazoximepropenyl- $\omega$ -carboxylic acid** (GOLDBECK), 1892, A., 319.  
**Ketazodiphenyl ketone** (CURTIUS), 1889, A., 1157.  
**Leucazocamphene** (TANRET), 1888, A., 720.

## AZO-COMPOUNDS—

- Levulinicphenylhydrazoneazobenzene** (VOLHARD), 1892, A., 436.  
**Methaneazobenzene**, idonitro- (RUSANOFF), 1892, A., 1416.  
**Methaneazobenzoic acid**, nitro- (GRIESS), 1885, A., 788.  
**Methoxybenzenylazoximebenzenyl, *o*- and *p*-** (MILLER), 1889, A., 254.  
*p*-**Methoxybenzenylazoxime-ethenyl** (MILLER), 1889, A., 254.  
*p*-**Methoxybenzenylazoximepropenyl- $\omega$ -carboxylic acid** (MILLER), 1889, A., 255.  
*o*-**Methoxycinnamic acid diazo-chloride** (SCHNELL), 1887, A., 140.  
*p*-**Methoxydiazobenzenesulphonic acid** (ALTSCHUL), 1892, A., 1081.  
**Methylamidoazobenzene** (*benzeneazomethylaniline*) and its acetyl derivative (BERJU), 1884, A., 1149.  
**Methylamidoazobenzenesulphonic acid**, sodium salt of (BERNTHSEN and GOSKE), 1887, A., 666.  
**Methylazimidothiazolecarboxylic acid** (WOHMANN), 1891, A., 226.  
**Methyltrichlorobromazimidobenzene** (ZINCKE and ARZBERGER), 1889, A., 502.  
**Methyldiazoamidobenzene** (*diazobenzenemethylanilide*) (FRISWELL and GREEN), 1886, T., 748.  
**Methylic acetylenedicarboxylodiazacetate** (BUCHNER), 1889, A., 694.  
*benzeneazocyanacetate* (HALLER), 1888, A., 824.  
*benzeneazodinitrophenylacetate* (MEYER), 1888, A., 693.  
*azomethylenecarboxylate* (CURTIUS and LANG), 1892, A., 452.  
*tolueneazocyanacetates, 1:2- and 1:4-* (HALLER), 1888, A., 824.  
*benzeneazocamphocarboxylate* (HALLER), 1892, A., 1344.  
*diazacetate*, action of, on the ethereal salts of unsaturated acids (BUCHNER), 1889, A., 694; 1890, A., 736.  
 *$\alpha$ -diazopropionate* (CURTIUS and LANG), 1892, A., 452.  
*diazosuccinamate* (CURTIUS and KOCH), 1887, A., 34.  
*fumaric diazoacetate* (BUCHNER), 1888, A., 1274.  
**2'-Methylindoleazobenzene** (WAGNER), 1888, A., 284.  
**Methyl-*o*-nitro-*p*-diazobenzene chloride, nitroso- (*p*-diazotoluenechloride, *o*-nitro- $\omega$ -nitroso-)** (MEYER), 1886 A., 63.



## AZO-COMPOUNDS—

- Methyldinitrophenylacetateazobenzenesulphonic acid**, sodium salt of (HAUSSKNECHT), 1889, A., 507.
- Methyldinitrophenylacetateazonaphthalene** (HAUSSKNECHT), 1889, A., 506.
- Methyldinitrophenylacetateazotoluene** (HAUSSKNECHT), 1889, A., 506.
- Methyldinitrophenylacetateazoxylene** (HAUSSKNECHT), 1889, A., 506.
- Methylpyrrolinebisazobenzene** (FISCHER and HEPP), 1886, A., 1041.
- Methyltetrahydroquinoline-1-and-3-azobenzenesulphonic acids**, 1- and 3- (BAMBERGER and WULZ), 1891, A., 1254.
- Methyl-*p*-toluidine-*o*-azobenzene-sulphonic acid** (BAMBERGER and WULZ), 1891, A., 1203.
- $\alpha$ -Naphthaleneazoacetic acid** (ODDO), 1891, A., 1382.
- Naphthaleneazoacetoacetic acids**,  $\alpha$ - and  $\beta$ - (ODDO), 1891, A., 1381.
- $\alpha$ -Naphthaleneazoacetone** (ODDO), 1891, A., 1382.
- 1:2:2'- $\beta$ -Naphthaleneazodihydroxynaphthalene** (CLAUSIUS), 1890, A., 628.
- $\alpha$ -Naphthaleneazo- $\alpha$ -hydroxynaphthoic acid** (BISCHOFF), 1890, A., 1148.
- $\beta$ -Naphthaleneazo-*o*- and -*p*-hydroxyquinolines** (MATHEUS), 1888, A., 851, 852.
- Naphthaleneazonaphthalene**. See Azonaphthalene.
- Naphthaleneazo- $\beta$ -naphthylanilines**,  $\alpha$ - and  $\beta$ - (MATTHES), 1890, A., 993.
- Naphthaleneazophenylenediamineazotoluene** (GRIESS), 1883, A., 1103.
- Naphthaleneazosalicylic acids** (GEBEK), 1889, A., 780.
- Naphthalenebisazobenzenes**,  $\alpha$ - and  $\beta$ - (NIETZKI and DIESTERWEG), 1888, A., 1083.
- $\alpha$ -Naphthalenebisazobenzene** (KROHN), 1889, A., 152.
- $\beta$ -Naphthylazoximeacetylenyl** (RICHTER), 1890, A., 63.
- $\beta$ -Naphthylazoximebenzenyl** (RICHTER), 1890, A., 62.
- Naphthylazoxime-ethenyls**,  $\alpha$ - and  $\beta$ - (EKSTRAND), 1887, A., 373.
- $\beta$ -Naphthylazoximenaphthyl** (EKSTRAND), 1887, A., 374.
- Naphtholazobenzenes** (DENARO), 1886, A., 246.
- derivatives of (MARGARY), 1884, A., 326; 1885, A., 546.

## AZO-COMPOUNDS—

- Naphthol-*p*-azobenzeneazodimethylanilines**,  $\alpha$ - and  $\beta$ - (MELDOLA), 1884, T., 109, 110.
- $\beta$ -Naphthol-*p*-azobenzeneazodiphenylamine** (MELDOLA), 1883, T., 441.
- $\beta$ -Naphthol-*p*-azobenzeneazodiphenylethylamine** (MELDOLA), 1884, T., 111.
- $\beta$ -Naphthol-*p*-azobenzeneazo- $\alpha$ -naphthaleneazo-*p*-naphthol** (MELDOLA), 1883, T., 437.
- $\beta$ -Naphthol-*p*-azobenzeneazo- $\alpha$ -naphthaleneazo-*p*-naphtholdisulphonic acid** (MELDOLA), 1883, T., 438.
- $\beta$ -Naphthol-*p*-azobenzeneazo- $\alpha$ -naphthaleneazophenol** (MELDOLA), 1883, T., 439.
- $\beta$ -Naphthol-*p*-azobenzeneazo- $\alpha$ -naphthaleneazoresorcinol** (MELDOLA), 1883, T., 439.
- $\alpha$ -Naphtholazobenzeneazo- $\beta$ -naphthol**, and its disulphonic acid (*sodium salt*) (MELDOLA), 1885, T., 664.
- Naphtholazobenzeneazo- $\alpha$ - and - $\beta$ -naphthols**,  $\alpha$ - and  $\beta$ - (MELDOLA), 1885, T., 663, 664.
- Naphtholazobenzeneazophenols**,  $\alpha$ - and  $\beta$ - (MELDOLA), 1885, T., 665, 666.
- Naphtholazobenzeneazoresorcinols**,  $\alpha$ - and  $\beta$ - (MELDOLA), 1885, T., 665, 666.
- $\beta$ -Naphtholazobenzeneazosalicylic acid** (MELDOLA), 1885, T., 667.
- $\beta$ -Naphthol-*p*-azobenzeneazo-*m*-xyleneazo- $\beta$ -naphthol** (MELDOLA), 1883, T., 439.
- $\beta$ -Naphtholazonitro- $\psi$ -cumenesulphonic acid** (MAYER), 1887, A., 953.
- $\alpha$ -Naphtholbisazo-*p*-benzene-*o*-toluene** (*benzeneazonaphtholazotoluene*) (GOLDSCHMIDT and POLLAK), 1892, A., 977.
- Naphthol-*p*-azodiphenylsulphonic acids**,  $\alpha$ - and  $\beta$ -, sodium salts of (CARNELLEY and SCHLESELMANN), 1886, T., 383.
- $\alpha$ -Naphtholbisdiazobenzene** (KROHN), 1889, A., 152.
- $\beta$ -Naphthylamine**, azo-derivatives of (MELDOLA and HUGHES), 1891, T., 372; P., 83.
- constitutional formula for the azo-derivatives of (MELDOLA), 1884, T., 118.
- $\beta$ -Naphthylamines**, secondary, azo-derivatives of (MATTHES), 1890, A., 992.

## Azo-compounds—

- Naphthylphenylethylazammonium iodide** (ZINCKE and CAMPBELL), 1890, A., 787.
- Nicotenylazosulphimecarbanilide** (MICHAELIS), 1892, A., 208.
- Nicotenylazoximebenzenyl** (MICHAELIS), 1892, A., 207.
- Nicotenylazoximepropenyl- $\omega$ -carboxylic acid** (MICHAELIS), 1892, A., 207.
- Oxaleneanilidoximeazoxime-ethenyl** (ZINKEISEN), 1890, A., 124.
- Oxalenediazoximedibenzyl** (ZINKEISEN), 1890, A., 123.
- Oxalenediazoximedipropenylidicarbonylic acid** (ZINKEISEN), 1890, A., 123.
- Oxyazo-compounds** (GOLDSCHMIDT and POLLAK), 1892, A., 974.  
action of phosphoric chloride on (PAGANINI), 1891, A., 556.
- p*-Phenetoilazo-*p*-cresol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 1147.
- m*-Phenetoilazo- $\beta$ -naphtholsulphonic acid** (WAGNER), 1885, A., 1212.
- p*-Phenetoilazoresorcinol** (LIEBERMANN and v. KOSTANECKI), 1884, A., 1147.
- Phenylazimidonaphthalenes, *o*- and *p*-** (ZINCKE), 1886, A., 244, 245.
- Phenylazoacetyl-*m*-amidobenzene** (WALLACH and SCHULZE), 1883, A., 583.
- Phenylazoamidobenzene hydrochloride** (WALLACH and SCHULZE), 1883, A., 583.
- Phenol-*p*-azobenzeneazo-*p*-dimethylaniline** (MELDOLA), 1884, T., 111.
- Phenolazobenzeneazo-*p*-phenol** (MELDOLA), 1885, T., 659.
- Phenol-*p*-azodiphenylsulphonic acid, sodium salt of** (CARNELLEY and SCHLESELMANN), 1886, T., 382.
- Phenolazobenzene-*p*-sulphonic acid** (GRIESS), 1883, A., 181.
- Phenolbisazobenzene, constitution of** (GOLDSCHMIDT and POLLAK), 1892, A., 976.
- Phenolbisazo-*o*- and -*p*-benzenes, and -*o*- and -*p*-toluenes** (GOLDSCHMIDT and POLLAK), 1892, A., 976.
- Phenolbisazotoluene** (NÖLTING and WERNER), 1891, A., 212.
- Phenolbisazo-*o*-toluene** (PAGANINI), 1891, A., 557.
- Phenolbisazo-*p*-toluene** (GOLDSCHMIDT and POLLAK), 1892, A., 976.

## Azo-compounds—

- o*-Phenylazimidobenzene** (SCHÖPFF), 1890, A., 1113; (KEHRMANN and MESSINGER), 1892, A., 889.
- amido-** (WILLGERODT), 1892, A., 1322.
- tetranitro-** (WILLGERODT), 1892, A., 1454.
- 3:4-Phenylazimidobenzoic acid** (SCHÖPFF), 1890, A., 374.
- 1:2-Phenylazimido-3-chlorobenzene** (ERNST), 1891, A., 300.
- $\alpha\beta$ -Phenylazimidonaphthalene** (ZINCKE), 1886, A., 244; (ZINCKE and CAMPBELL), 1890, A., 787.
- $\psi$ -Phenylazimidonaphthalene** (CLAUS), 1890, A., 788.
- Phenylazimidotolylamine, dinitro-** (ERNST), 1891, A., 300.
- Phenylazo-**. See also Benzeneazo-.
- Phenylazoacetoacetaldehyde** (*benzeneazocetoacetaldehyde*) (BEYER and CLAISEN), 1888, A., 827.
- Phenylazoacetoacetic acid** (*benzeneazocetoacetic acid*), *o*-nitro-, and its derivatives (BAMBERGER), 1885, A., 157.
- Phenylazoacetone**. See Pyruvaldehydephenylhydrazone.
- Phenylazoacetophenone** (*benzeneazocetophenone*), and *o*-nitro- (BAMBERGER and CALMAN), 1886, A., 62.
- Phenylazoacetylacetone** (*benzeneazocetylacetone*) (BEYER and CLAISEN), 1888, A., 828.
- Phenylazoxazolecarboxylic acid** (NUSSBERGER), 1892, A., 1178.
- Phenyl-*p*-chloronitrazobenzene** (*benzeneazo-*p*-chloronitrobenzene*), 2:4-dinitro- (WILLGERODT and BÖHM), 1891, A., 906.
- o*-Phenylenediazo sulphide** (JACOBSON), 1889, A., 135.
- Phenylenediazosulphidecarboxylic acid** (PFITZINGER and GATTERMANN), 1889, A., 868.
- Phenylethenylazoximebenzenyl** (KNUDSEN), 1885, A., 897.
- p*-cyano-** (ROSENTHAL), 1890, A., 148.
- Phenylethenylazoxime-ethenyl** (KNUDSEN), 1885, A., 898.
- Phenylethenylazoximepropenyl- $\omega$ -carboxylic acid** (KNUDSEN), 1885, A., 1218.
- Phenylethylamidobenzeneazophenylethylaniline** (LIPPMANN and FLEISSNER), 1884, A., 180.
- Phenyllic diazobenzenesalicylate** (LIMPRICHT), 1891, A., 1036.

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Phenylmethaneazobenzene, *o*-nitro- (PAAL and BODEWIG), 1892, A., 1456.

Phenylmethylamidobenzeneazotribromobenzene (SILBERSTEIN), 1883, A., 662.

Phenylmethylpyrazoloneazobenzene (KNORR), 1887, A., 602; (v. BUCHKA and SPRAGUE), 1890, A., 29; (SPRAGUE), 1891, T., 336.

identity of, with phenylhydrazineketophenylmethylpyrazolone (KNORR), 1888, A., 724.

1-Phenyl-3:5-pyrazolidone-4-azobenzene (MICHAELIS and BURMEISTER), 1892, A., 1005.

Phenylpyrrolineazobenzene (FISCHER and HEPP), 1886, A., 1042.

Picrylazonaphthalenes (*benzeneazonaphthalenes, trinitro-*) (WILLGERODT and SCHULZ), 1891, A., 572.

Picryl-*m*-chlorazobenzene (*benzene-m-chlorazobenzene, trinitro-*) (WILLGERODT and MÜHE), 1892, A., 454.

Picryl-*p*-chlorazobenzene (*benzene-p-chlorazobenzene, trinitro-*) (WILLGERODT and BÖHM), 1891, A., 905.

Picryl-*p*-chloronitrazobenzene (*benzeneazochloronitrazobenzene, trinitro-*) (WILLGERODT and BÖHM), 1891, A., 906.

Polyazo-compounds (WILLGERODT), 1890, A., 1118.

Propane-*p*-bisazoanisole, *dinitro-* (KEPLER and MEYER), 1892, A., 1062.

Propanebisazobenzene, *dinitro-* (KEPLER and MEYER), 1892, A., 1062.

Propanebisazotoluene, *dinitro-* (KEPLER and MEYER), 1892, A., 1062.

Propionyl- $\alpha$ -naphtholazobenzene (GOLDZWEIG and KAISER), 1891, A., 448.

Propyleneazobenzene, *nitro-* (MEYER), 1892, A., 575.

Propylene-*p*-azoanisole, propyleneazobenzene, propylene-*m*-azobenzoic acid, propyleneazo-*m*-bromobenzene, propyleneazo- $\psi$ -cumene, propylene-*p*-azophenetole, and propylene-*o*- and -*p*-azotoluenes, *nitro-*, derivatives of (ASKENASY and MEYER), 1892, A., 1062.

Pyrrolineazobenzene, pyrrolineazobenzeneazo- $\beta$ -naphthalene, pyrrolineazo-*p*-dimethylamidobenzene, pyrrolineazo- $\alpha$ - and - $\beta$ -naphthalenes, pyrrolineazo-*p*-toluene,

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pyrrolinebisazobenzene, and pyrrolinebisazo- $\alpha$ - and - $\beta$ -naphthalenes (FISCHER and HEPP), 1886, A., 1041.

Quinol-*p*-azodiphenylsulphonic acid, sodium salt of (CARNELLEY and SCHLESELMANN), 1886, T., 382.

Resorcinol-*p*-azobenzeneazodimethylaniline (MELDOLA), 1884, T., 110.

Resorcinolazobenzeneazoresorcinol (MELDOLA), 1885, T., 661.

Resorcinol-*p*-azodiphenylsulphonic acid, sodium salt of (CARNELLEY and SCHLESELMANN), 1886, T., 382.

Resorcinolbisazobenzenes, 1:3:2:4- and 1:3:4:6- (GOLDSCHMIDT and POLLAK), 1892, A., 977.

Salicenyloximebenzenyl (SPILKER), 1890, A., 143.

Salicenyloxime-ethenyl (SPILKER), 1890, A., 143.

Salicenyloximepropenyl- $\omega$ -carb-oxylic acid (MILLER), 1890, A., 146.

Salicylaldehyde-*m*- and -*p*-azobenzenesulphonic acids (TUMMELEY), 1889, A., 779, 780.

Salicylamide-*p*-azobenzenesulphonic acid (TUMMELEY), 1889, A., 780.

Succinenylazoxybenzene (SEMBRITZKI), 1888, A., 935.

Succinenyldiazoximidebenzenyl (SEMBRITZKI), 1890, A., 125.

Sulphanilazocumenol, potassium salt of (LIEBERMANN and v. KOSTAN-ECKI), 1884, A., 1147.

Sulphobenzeneazodiamidobenzoic acid (GRIESS), 1883, A., 184.

Sulphobenzeneazoamidotetrahydronaphthol (BAMBERGER and BAMMAN), 1889, A., 784.

Sulphobenzenediazoamido-3-methyltetrahydroquinoline (BAMBERGER and WULZ), 1891, A., 1255.

Sulphobenzenediazoamidomethyl-*p*-toluidine (*sulphobenzeneazomethyltoluidide*) (BAMBERGER and WULZ), 1891, A., 1203.

Sulphobenzeneazoethyl- $\alpha$ -naphthylamine (BAMBERGER and GOLDSCHMIDT), 1891, A., 1239.

*p*-Sulphobenzeneazo- $\alpha$ -naphthol (NÖLTING and GRANDMOUGIN), 1891, A., 1074.

Sulphobenzeneazonaphthylaminesulphonic acids (*azocamidodisulphonaphthalenebenzenesulphonic acids*) (GRIESS), 1883, A., 182, 183.



## AZO-COMPOUNDS—

- p*-Sulphobenzeneazo-*o*-nitrophenol, Griess' (MEYER and KREIS), 1883, A., 982.
- Sulphobenzeneazo-*ar*-octohydro- $\alpha$ -naphthaquinoline (BAMBERGER and STETTENHEIMER), 1891, A., 1260.
- Sulphobenzeneazo-*ar*-octohydro- $\beta$ -naphthaquinoline (BAMBERGER and STRASSER), 1891, A., 1514.
- Sulphobenzeneazo- $\beta$ -naphthylphenylamine (WITT), 1887, A., 590.
- Sulphobenzeneazotetrahydro- $\alpha$ -naphthaquinoline (BAMBERGER and STETTENHEIMER), 1891, A., 1259.
- Sulphobenzeneazo-*ar*-tetrahydro- $\alpha$ -naphthol (BAMBERGER and BORDT), 1890, A., 509.
- Sulphobenzeneazo- $\alpha$ -tetrahydronaphthylamine (BAMBERGER and BORDT), 1889, A., 715.
- Sulphobenzeneazotetrahydroquinoline (BAMBERGER), 1890, A., 1302.
- Sulphonamidobenzeneazobenzenesulphonamide (LIMPRICHT and MEYER), 1892, A., 973.
- Sulphonamidobenzeneazodibromobenzenesulphonamide, dibromo-, and sulphonamidobenzeneazotribromobenzenesulphonamide, tribromo- (RODATZ), 1883, A., 479, 480.
- Sulpho-*o*- and -*p*-tolylazo-*m*- and -*p*-cresols (*sulphotolueneazocresols*) and salts (NÖLTING and KOHN), 1884, A., 901, 902.
- Sulphoxyleneazo- $\beta$ -naphtholdisulphonic acid, spectrum of (HARTLEY), 1887, T., 188.
- Tetrahydronaphthaleneazo- $\alpha$ -naphthylamine (BAMBERGER and BORDT), 1889, A., 715.
- Tetrahydronaphthaleneazo- $\beta$ -naphthylamine, amido- (BAMBERGER and BAMMANN), 1889, A., 783.
- Tetrahydronaphthaleneazoresorcinol (BAMBERGER and BORDT), 1889, A., 716.
- Tetramethyldiamidoazobenzene (*dimethylamidobenzeneazodimethylaniline*) (NÖLTING and KOHN), 1885, A., 386; (BARBIER and VIGNON), 1888, A., 54.
- Tetrazodiphenol (KUNZE), 1889, A., 262.
- Tetrazodiphenyl (TÄUBER), 1891, A., 570.
- Tetrazodiphenyldisulphonic acid (LIMPRICHT), 1891, A., 930.

## AZO-COMPOUNDS—

- Tetrazoleazodimethylaniline (THIELE), 1892, A., 1299.
- Tetrazoleazo- $\beta$ -naphthylamine (THIELE), 1892, A., 1299.
- Tetrazostilbene, dyes from (BENDER and SCHULTZ), 1887, A., 268.
- p*-Tolenylamide-*p*-tolenylazosulphimecarbohydrosulphide (CRAYEN), 1891, A., 560.
- p*-Tolenylazosulphimecarbo-di- and -hydro-sulphides (CRAYEN), 1891, A., 560.
- p*-Tolenylazoximeacetylenyl (SCHUBART), 1890, A., 48.
- o*-Tolenylazoximebenzenyl (SCHUBART), 1890, A., 49.
- p*-Tolenylazoximebenzenyl (SCHUBART), 1886, A., 798.
- p*-Tolenylazoxime-ethenyl (SCHUBART), 1890, A., 47.
- p*-Tolenylazoximepropenyl- $\omega$ -carboxylic acid (SCHUBART), 1890, A., 48.
- o*-Tolenylazoxime-*o*-tolenyl (STIEGLITZ), 1890, A., 256.
- p*-Tolenylazoxime-*p*-tolenyl (SCHUBART), 1890, A., 48.
- Tolueneazimidotoluene (ZINCKE and LAWSON), 1887, A., 731.
- p*-Tolueneazacetone (v. RICHTER and MÜNZER), 1884, A., 1342.
- Tolueneazochlorobenzenes, *o*- and -*p*- (PAGANINI), 1891, A., 556, 557.
- Tolueneazocyanocamphors, *o*- and -*p*- (MINGUIN), 1892, A., 1343.
- Tolueneazodimethylaniline, and its *p*-azo- $\beta$ -naphthol and *p*-azophenol compounds (WALLACH), 1887, A., 41.
- Toluene-*o*- and -*p*-azodimethylanilines, *o*- and -*p*-acetamido- and *o*- and -*p*-amido- (WALLACH), 1887, A., 41.
- p*-Tolueneazo-*o*- and -*p*-hydroxyquinolines (MATHÉUS), 1888, A., 851, 852.
- Tolueneazo- $\alpha$ -naphthol, amido-, methyl and ethyl ethers of (WITT and SCHMIDT), 1892, A., 863.
- Tolueneazo- $\alpha$ - and - $\beta$ -naphthols, *o*- and -*p*-, and their derivatives (ZINCKE and RATHGEN), 1887, A., 55.
- p*-Tolueneazo- $\beta$ -naphthylphenylamine (MATTHES), 1890, A., 992.
- Tolueneazophenols, *o*- and -*m*- (PAGANINI), 1891, A., 556, 557.
- Tolueneazophenylenediamineazobenzene (GRIESS), 1883, A., 1103.
- Tolueneazophenylic phosphates, *o*- and -*p*- (PAGANINI), 1891, A., 556, 557.

## AZO-COMPOUNDS—

- p*-Tolueneazoresorcinol (HEUMANN and OECONOMIDES), 1887, A., 664.
- Tolueneazotoluene. See also Azo-toluene.
- Tolueneazotoluene-di-*o*-sulphonic acid (*p*-azobenzylidisedisulphonic acid) (MOHR), 1884, A., 69.
- o*-Tolueneazo-*m*-toluene (SCHULTZ), 1884, A., 903.
- Toluenediazoacetotoluidide (HEUSLER), 1892, A., 459.
- Toluene-*p*-diazooniine (WALLACH), 1887, A., 137.
- Toluene-*o*, and *p*-diazopiperidides and their nitro-derivatives (WALLACH), 1887, A., 137.
- Toluylazimide (NIEMENTOWSKI), 1888, A., 837.
- p*-Tolylazimidobenzene, amido- (WILLGERODT), 1892, A., 1322.
- Toluene-*p*-azoacetacetic acid, *m*-nitro-, and *m*-amido- (BAMBERGER), 1885, 157, 158.
- Toluene-*p*-azoacetone, *m*-nitro- (BAMBERGER), 1885, A., 158.
- Toluene-*p*-azobenzoylacetic acid, *m*-nitro-, the corresponding acetophenone, and the ketoxime (BAMBERGER and CALMAN), 1886, A., 62.
- p*-Tolueneazo-*p*-cresetol (NÖLTING and WERNER), 1891, A., 214.
- p*-Tolueneazo-*p*-cresol, and its acetic and benzoic derivatives (NÖLTING and KOHN), 1884, A., 901.
- Tolueneazo-*o*- and -*p*-cresols, *o*- and -*p*- (NÖLTING and WERNER), 1891, A., 212.
- p*-Toluene-*o*-azodibenzylamine (LELLMANN and ARNOLD), 1892, A., 316, 890.
- p*-Tolueneazodimethylaniline, nitro-derivatives of (NÖLTING), 1888, A., 270.
- p*-Tolueneazodimethylanilinesulphonic acid (NÖLTING), 1888, A., 271.
- Tolueneazophenetoils, *o*- and -*p*- (NÖLTING and WERNER), 1891, A., 212.
- o*-Tolueneazophenol (NÖLTING and WERNER), 1891, A., 212.
- o*-Tolueneazo-*o*-tolylthio- and -dithio-biazolones (FREUND), 1892, A., 513.
- p*-Tolueneazo-*p*-tolylthiobiazolone and *p*-tolueneazo-*p*-tolyl- $\psi$ -thiobiazolone (FREUND), 1892, A., 512.
- Tolylenediamineazobenzeneazobenzenesulphonic acid (azosulphobenzene-toluenediamine) (GRIESS), 1883, A., 1103.
- Tolylene diazosulphide (JACOBSON and NEY), 1889, A., 772.

## AZO-COMPOUNDS—

- Triazimidoacetamide (CURTIUS and LANG), 1889, A., 370.
- Triazoacetamide (CURTIUS and LANG), 1889, A., 370.
- Triazoacetic acid (CURTIUS and LANG), 1889, A., 369.
- constitution of (CURTIUS), 1889, A., 587.
- Triazobenzene (GRIESS), 1886, A., 459; (ODDO), 1891, A., 696.
- physiological action of (ODDO), 1892, A., 366.
- p*-amido- (GRIESS), 1888, A., 826.
- Triazobenzenedisulphonic acid (LIMPRICHT), 1889, A., 399.
- m*-Triazobenzenesulphonic acid (LIMPRICHT), 1889, A., 397.
- p*-Triazobenzenesulphonic acid and its derivatives (GRIESS), 1887, A., 817.
- m*-Triazobenzoic acid (GRIESS), 1886, A., 459.
- m*-amido- (GRIESS), 1888, A., 826.
- Triazodibromobenzenesulphonic acid (LIMPRICHT), 1889, A., 399.
- Triazonaphthalenesulphonic acid and its derivatives (GRIESS), 1887, A., 818.
- m*-Triazo-oxalamidobenzoic acid (GRIESS), 1888, A., 827.
- Triazo-*o*-toluenesulphonic acids, *o*- and -*p*- (LIMPRICHT), 1889, A., 398.
- Trimethylazobenzeneammonium iodide (BERJU), 1884, A., 1149.
- Triphenylmethylazimethylene (CURTIUS and RAUTERBERG), 1891, A., 1360.
- Xyleneazoresorcinol (FISCHER and WIMMER), 1887, A., 820.
- Xyleneazoxylene. See Azoxylene.
- m*-Xylenediazopiperidide, nitro- (AHRENS), 1892, A., 1437.
- Xylenic diazosulphide (JACOBSON and NEY), 1889, A., 772.
- Azo-group, intramolecular formation of (LELLMANN and ARNOLD), 1892, A., 316.
- substitution of, for ketonic oxygen (CURTIUS), 1889, A., 1157; (CURTIUS and LANG), 1892, A., 451.
- Azoles (HANTZSCH), 1889, A., 413.
- Azonium bases (WITT), 1887, A., 729; 1891, A., 1108; (KEHRMANN and MESSINGER), 1891, A., 945, 1109; 1892, A., 1108; (WITT and SCHMIDT), 1892, A., 1246.
- Azophenine (WITT and THOMAS), 1883, T., 115; (WITT), 1887, A., 821; 1888, A., 54; (FISCHER and HEPF), 1887, A., 1105; 1888, A., 472, 1291.

- Azophenine**, constitution of (FISCHER and HEPP), 1887, A., 1105.  
 formation of (FISCHER and HEPP), 1890, A., 614.  
 synthesis of (V. BANDROWSKI), 1888, A., 1081.  
 derivatives of (FISCHER and HEPP), 1888, A., 472.  
*tetrabrom- and chlor-* (FISCHER and HEPP), 1887, A., 1105.  
**Azotine** (DEHERAIN), 1885, A., 424.  
**Azotometer**, Scheibler's, modification of (SENDÉN), 1883, A., 508.  
 Zulkowsky's, modification of (GAWALOWSKI), 1885, A., 593.  
**Azotometry** and the azotometer (KNOP), 1886, A., 1072.  
**Azulene** (HOCK), 1884, A., 82.  
**Azulmic matter**, oxidation of, obtained by electrolysis of ammonia with carbon electrodes (MILLOT), 1888, A., 242.  
**Azurite**, crystallised, from Arizona (FARRINGTON), 1891, A., 992.  
**Azylines** (LIPPMANN and FLEISSNER), 1883, A., 53, 184, 868, 1100; 1884, A., 178, 179; (NÖLTING), 1885, A., 895.

## B.

- Bacillus**, investigation of (KUNZ), 1888, A., 1122.  
*Bacillus acidi laevolactici* (SCHARDINGER), 1891, A., 666.  
*amylozymicus* (PERDRIX), 1892, A., 90.  
*anthracis* (KLEIN), 1886, T., 200; (HANKIN), 1889, A., 1234.  
 chemical pathology of (MARTIN), 1892, A., 744.  
 in man (MARTIN), 1892, A., 1117.  
*butylicus*, nature of the alcohols formed in the fermentation by (MORIN), 1888, A., 125.  
 products of fermentation with (FITZ), 1884, A., 765.  
 cattle plague (METZDORF), 1884, A., 1398.  
 cholera, formation of ptomaines by (POEHL), 1886, A., 731.  
 reduction of nitrates by (PETRI), 1890, A., 76.  
 comma (KUNZ), 1888, A., 1123.  
 odour and poisonous effects of the products of the fermentation produced by (NICATI and RIETSCH), 1885, A., 180.  
 poisonous product of the culture of (NICATI and RIETSCH), 1886, A., 169.  
 from *Erythema nodosum*, chemical composition of (BOVET), 1889, A., 539.  
*Bacillus ethaceticus* (FRANKLAND and FOX), 1890, A., 916.  
 fermentation of arabinose by (FRANKLAND and MACGREGOR), 1892, T., 737; P., 132.  
 fermentation of calcium glycerate by (FRANKLAND and FREW), 1890, P., 173; 1891, T., 81.  
 fermentation of mannitol and dextrose by (FRANKLAND and LUMSDEN), 1892, T., 442; P., 70.  
*ethacetosuccinicus*, fermentation of mannitol and dulcitol by (FRANKLAND and FREW), 1892, T., 254.  
 morphological characterisation of (FRANKLAND), 1892, T., 275.  
*floccus* (WARINGTON), 1888, T., 729.  
*fluorescens putridus* and *B. f. liquefaciens*, chromogenic functions of (GESSARD), 1890, A., 655.  
*frugi* (WARINGTON), 1891, T., 501.  
 glanders (ISRAËL; WASSILIEFF), 1884, A., 914.  
*intestinalis* (WARINGTON), 1888, T., 729.  
*leprae*, cultivation of (RAKE), 1888, A., 1124.  
*liquefaciens magnus* (NENCKI), 1890, A., 78.  
 decomposition of gelatin by (SELITRENNY), 1890, A., 543.  
 malignant oedema, action of, on carbohydrates and on lactic acid (KERRY and FRAENKEL), 1890, A., 1454; 1892, A., 91.  
 decomposition of albumin by (KERRY), 1890, A., 542.  
 panary fermentation (LAURENT), 1887, A., 70.  
*pyocyaneus* (KUNZ), 1888, A., 1122.  
 chromogenic functions of (GESSARD), 1890, A., 655.  
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 transformation and elimination of nitrogenous organic matter by (ARNAUD and CHARRIN), 1891, A., 1132, 1394.  
*radicicola*, accumulation of atmospheric nitrogen in cultivations of (BEYERINCK), 1892, A., 1019.  
*Rauschbrand* (*symptomatic anthrax*) (NENCKI and SIEBER), 1890, A., 78.  
 decomposition of gelatin by (SELITRENNY), 1890, A., 543.  
*spinosus* (NENCKI), 1890, A., 78.  
 splenic fever, albumin of (NENCKI), 1885, A., 177.



- Bacillus strumitis* (KUNZ), 1888, A., 1122.  
*suaveolens* (SCLAVO and GOSIO), 1891, A., 1284.  
*subtilis*, chemistry of (VANDEVELDE), 1885, A., 287.  
*sulphureus* (WARINGTON), 1888, T., 730.  
 swine fever, ptomaines formed in the cultivation of (v. SCHWEINITZ), 1891, A., 476.  
*tardecrensens* and *B. toruliformis* (WARINGTON), 1888, T., 730, 731.  
*tuberculosis* (KLEIN), 1886, T., 201.  
 composition of (HAMMERSCHLAG), 1889, A., 638.  
 influence of culture fluids and reagents on the growth of (WILLIAMS), 1885, A., 578.  
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*o*-nitro- (MEYER), 1886, A., 63.  
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- Benzophenone**, *m*-bromo- (KOTTENHAHN), 1891, A., 1236.  
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 $\alpha$ - and *p*-bromo-*m*-nitro-, *p*-dibromo-*m*-nitro-, and *p*-dibromo-*di*-*m*-nitro- (SCHÖPFF), 1892, A., 336.  
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 $\alpha$ - and  $\beta$ -*p*-chloro-, benzyl ether (DEMUTH and DITTRICH), 1891, A., 314.  
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 $\alpha$ -nitro- (GEIGY and KOENIGS), 1885, A., 1236.  
*m*-nitro- (BECKER), 1883, A., 203.  
*p*-nitro- (BASLER), 1884, A., 310.  
*p*-dinitro- (LANGE and ZUFALL), 1892, A., 1460.  
*trans*-nitro- (STAEDEL), 1883, A., 991.  
*m*-nitro-*p*-amido- (SCHÖPFF), 1892, A., 336.  
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**Benzophenoneacetic acid**, *dithio*- (BONGARTZ), 1886, A., 938.  
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**Benzophenonedicarboxylic acid** (*benzoylphthalic acid*) (ROSPENDOWSKI), 1886, A., 626.  
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**Benzophenone - *p* - dicarboxylic acid** (BRÖMME), 1887, A., 484.  
**Benzophenoneoxime**, action of nitric peroxide on (SCHOLL), 1891, A., 315.  
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*s*-*p*-dichloro- (DITTRICH), 1891, A., 1237.  
**Benzophenonephenylhydrazone** (FISCHER), 1884, A., 1151; (PICKEL), 1886, A., 545.  
**Benzophenonesulphone** (GRAEBE and SCHULTESS), 1891, A., 1059.  
**Benzophenonidene pyrothiophosphite** (JAPP and RASCHEN), 1886, T., 481.  
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**Benzophenylacetonehydrazide** (*acetonebenzoylphenylhydrazide*) (RUHEMANN and BLACKMAN), 1889, T., 615.  
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**Benzophenylhydrazides**, isomeric (MICHAELIS and SCHMIDT), 1887, A., 365.  
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**Benzophenylketodihydro-*m*-diazine**.  
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**Benzophenylmethylhydrazide** (TAFEL), 1885, A., 1060.  
**Benzophenylsemicarbazide** (MICHAELIS and SCHMIDT), 1887, A., 820.  
**Benzophenylsemithiocarbazide** (DIXON), 1889, T., 304.  
**Benzophenyltoluenesulphonamide** (*toluenesulphonbenzanilide*) (REMSSEN and PALMER), 1887, A., 146.  
 $\beta$ -**Benzopinacoline**, constitution of (DELAURE), 1891, A., 456.  
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- Benzothiocarbimide** and aldehyde-ammonia (DIXON), 1892, T., 532.
- Benzothio- $\beta$ -dinaphthylamide** (KYM), 1890, A., 1306.
- Benzothiodiphenylamide** (FRAENKEL), 1885, A., 1130.
- Benzotoluenesulphonamide** (*toluenesulphonbenzamide*) and its derivatives (REMSSEN and PALMER), 1887, A., 145.
- Benzo-*o*-toluidide**, thio- (STIEGLITZ), 1890, A., 256.
- Benzo-*p*-toluidide** (MÜLLER), 1890, A., 43.
- p*-nitro-, and nitrothio- (GATTERMANN and NEUBERG), 1892, A., 839.
- thio- (MÜLLER), 1890, A., 43.
- Benzo-*o*- and -*p*-toluidides** (GUDEMAN), 1888, A., 1282.
- Benzo-*p*-toluidimido-chloride** (JUST), 1886, A., 617.
- "**Benzotoluidine sulphite**" (MICHAELIS), 1891, A., 717.
- Benzo-*o*-tolylcarbamide** (GATTERMANN and CANTZLER), 1892, A., 832.
- Benzo-*o*-tolylhydrazide** (GATTERMANN, JOHNSON, and HÖLZLE), 1892, A., 843.
- Benzotrichloride**, action of copper on (ONUFROWICZ), 1884, A., 1133.
- action of sodium benzenesulphonate on (R. and W. OTTO), 1888, A., 841.
- compounds of, with phenols and phenylamines (DOEBNER), 1883, A., 861.
- p*-chloro- (KLEPL), 1884, A., 447.
- o*-cyano- (GABRIEL and WEISE), 1888, A., 261.
- Benzotrimethyltrifurfuran**. See Benzenetrimethyltrifurfuran.
- Benzoxamidine**. See Benzenylamidoxime.
- Benzoximido-ether** (PINNER), 1884, A., 739.
- Benzo-*m*-xylylamide** (BRÖMME), 1888, A., 1296.
- Benzoxylidide** and its thio-derivative (GUDEMAN), 1888, A., 1282.
- Benzo-*m*-xylidide** (SMITH), 1892, A., 491.
- Benzo-*p*-xylidide** (PFLUG), 1890, A., 606.
- Benzoyl**, amidodicyano-, derivatives of (GRIESS), 1885, A., 1225.
- Benzoylactaldehyde**, action of hydroxylamine on (CLAISEN and STOCK), 1891, A., 451.
- Benzoylactaldoxime** (CLAISEN and STOCK), 1891, A., 451.
- Benzoylacetamide** (OBRÉGIA), 1892, A., 325.
- Benzoylacetanilide** (KNOER), 1888, A., 1113.
- Benzoylactic acid**, and its derivatives (v. BAAYER), 1883, A., 336; (PERKIN), 1884, T., 170, 176; 1885, T., 240, 262; P., 17, 31; (v. BAAYER and PERKIN), 1884, A., 63, 838; (PERKIN and CALMAN), 1886, T., 154; P., 139; (PERKIN and STENHOUSE), 1891, T., 996; P. 190.
- p*-nitro-, and its derivatives (PERKIN and BELLENOT), 1884, A., 1023; 1885, A., 794; 1886, T., 440; P., 193.
- Benzoylacetone** (*acetylacetophenone*) (FISCHER and KUZEL), 1884, A., 60; (GEVEKOHT), 1884, A., 445; (CERESOLE), 1884, A., 1167; (BEYER and CLAISEN), 1887, A., 943; (CLAISEN and LOWMAN), 1888, A., 692.
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- magnetic rotation of (PERKIN), 1892, T., 831, 863.
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- dicyanhydrin, acids from (CARLSON), 1892, A., 1471.
- methylimide (BEYER), 1891, A., 1691.
- Benzoylacetone**,  $\alpha$ -cyano- (BURNS), 1892, A., 451.
- o*-nitro-derivative of (FISCHER and KUZEL), 1884, A., 59; (GEVEKOHT), 1884, A., 445.
- oxime of (CERESOLE), 1884, A., 1167.
- Benzoylacetoneamine** (FISCHER and BÜLOW), 1885, A., 1237.
- Benzoylacetoneaniline** (BEYER), 1887, A., 849.
- Benzoylacetoneitrile** and its derivatives (HALLER), 1886, A., 240; 1887, A., 826; 1888, A., 873; (BARTHE), 1888, A., 951; (v. MEYER), 1890, A., 849; (CLAISEN and STOCK), 1891, A., 451; (OBRÉGIA), 1892, A., 324; (GARELLI), 1892, A., 845.
- Benzoylacetophenone**, preparation of (PERKIN), 1885, T., 251.
- Benzoylacetetyl**. See Phenyl methyl diketone.
- Benzoylacetetylacetonitrile** (*benzoylacetetyl-methyl cyanide*) (BURNS), 1892, A., 451.
- Benzoylacetetylphosphinous acid** (VILLE), 1890, A., 619.
- Benzoylaconine**, formation of (DUNSTAN and PASSMORE), 1892, T., 401.

- Benzoylallylacetic acid** (*benzoylpentenoic acid*) (PERKIN), 1884, T., 185; (BAEYER and PERKIN), 1884, A., 63.
- Benzoylamarine**, and its derivatives (CLAUS and SCHERBEL), 1886, A., 238.
- Benzoylamyl-*d*-ecgonine hydrochloride** (EINHORN and MARQUARDT), 1890, A., 913.
- $\beta$ -Benzoyl- $\alpha$ -isoamylpropionic acid** (PAAL and HOFFMANN), 1890, A., 1101.
- Benzoylaniline**. See **Benzophenone**, *p*-amido-.
- Benzoylanisenyamidoxime** (MILLER), 1890, A., 145.
- p*-Benzoylanisole** (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 963.
- Benzoylanthranil, and benzoylanthranilic acid**, and its salts (FRIEDLÄNDER and WLEÜGEL), 1884, A., 61.
- Benzoylazoimide** (CURTIUS), 1891, A., 56.
- Benzoylisobenzaldazine** (CURTIUS and THUN), 1891, A., 1356.
- "Benzoylbenzeneazacetone"** and **"benzoylbenzenehydrazo-*o*-cresol"** (GOLDSCHMIDT and POLLAK), 1892, A., 975, 977.
- "Benzoylbenzenehydrazo-*p*-cresol"** and **"benzoylbenzenehydrazo- $\alpha$ -naphthol"** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1209, 1211.
- Benzoylbenzenetetra-carboxylic acid** (ESSNER and GOSSIN), 1885, A., 254.
- Benzoylbenzenylamidoxime** (TIEMANN and KRÜGER), 1884, A., 1326.
- Benzoylbenzethylhydroxylamine** (PIEPER), 1883, A., 461.
- o*-Benzoylbenzoic acid** (*benzophenone-*o*-carboxylic acid*), anthraquinone from (PERKIN), 1891, T., 1012.
- phenylhydrazine of (ROSER)** 1885, A., 797.
- m*-chloro-** (GRAEBE and RÉE), 1886, T., 530.
- di*chloro-** (LE ROYER), 1887, A., 832.
- tetrachloro-*** (KIRCHER), 1887, A., 831.
- m*-Benzoylbenzoic acid** and its reduction products (SENFF), 1884, A., 427.
- Benzoylbenzylamarine** (CLAUS and SCHERBEL), 1886, A., 238.
- Benzoylbromothymol** (MAZZARA), 1890, A., 366.
- Benzoylbutaldehyde** (CLAISEN and MEYEROWITZ), 1890, A., 358.
- Benzoylisobutylecgonine** (NOVY), 1887, A., 1126.
- hydrochloride** (EINHORN and MARQUARDT), 1890, A., 913.
- Benzoylbutylic alcohol** (PERKIN), 1887, T., 733; (KIPPING and PERKIN), 1890, T., 309.
- oxime of** (KIPPING and PERKIN), 1890, T., 310.
- bromide** (PERKIN), 1887, T., 732.
- Benzoylcaproic acid**. See **Benzoylhexoic acid**.
- Benzoylcarbazole** (BIZZARRI), 1891, A., 220; (MAZZARA), 1891, A., 570.
- Benzoylcarbinol** (*hydroxyacetophenone*), constitution of (PLÜCHL and BLÜMLEIN), 1883, A., 983.
- phenylhydrazone** (LAUBMANN), 1888, A., 366.
- p*-nitro-** (ENGLER and ZIELKE), 1889, A., 505.
- Benzoylcarvoxime** (GOLDSCHMIDT and ZÜRRER), 1885, A., 1058.
- "Benzoyl-*m*- and -*p*-chlorobenzeneazo-*p*-cresols"** and **"benzoyl-*m*-chlorobenzenehydrazo-*p*-cresol"** (GOLDSCHMIDT and POLLAK), 1892, A., 975.
- Benzoyl-compounds**, preparation of (HOFFMANN and MEYER), 1892, A., 604.
- heat equivalents of** (STOHMANN, RODATZ, and HERZBERG), 1887, A., 878; 1888, A., 333.
- of carbohydrates, glucosamine and glucosides** (KUENY), 1890, A., 578.
- Benzoylcotarnine and its oxime** (ROSER), 1890, A., 528.
- Benzoyl- $\psi$ -cuminol** (FRÖHLICH), 1884, A., 1319.
- Benzoylcyanocamphor** (HALLER), 1891, A., 1499.
- Benzoyldihydropyrroline** (ANDERLINI), 1890, A., 65.
- derivatives of** (ANDERLINI), 1890, A., 1430.
- Benzoyldihydroxyanhydroecgonine**, derivatives of (EINHORN and RASSOW), 1892, A., 1016.
- Benzoyldihydroxybenzenesulphonic acid** (*dihydroxybenzophenonesulphonic acid*), ammonium salt of (REMSEN and LINN), 1889, A., 710.
- Benzoyldiphenylsemithiocarbazide** (MICHAELIS and SCHMIDT), 1887, A., 820; 1889, A., 1160.
- Benzoylisodurene** (ESSNER and GOSSIN), 1885, A., 253.
- Benzoylegonine** (MERCK), 1885, A., 997; (SKRAUP), 1885, A., 1249.
- preparation of** (LIEBERMANN and GIESEL), 1889, A., 168.
- conversion of, into cocaine** (SKRAUP), 1885, A., 1249.
- Benzoylencarbamide**. See **2:4'-Diketodihydroquinazoline**.

- Benzoylthoxyfurfurine** (BAHRMANN), 1883, A., 800.
- Benzoyl- $\alpha$ -ethoxynaphthalene** (*ethoxynaphthylphenylketone*) (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 964.
- Benzoyl-ethyl- $\alpha$ -carboxylic acid** (*phenyl ethyl ketone  $\alpha$ -carboxylic acid*) (ROSER), 1886, A., 243.
- Benzoyl-ethylenecarboxylic acid**, phenylhydrazide of (ROSER), 1885, A., 797.
- $\alpha$ -Benzoyl-ethyl- $\alpha$ -cyanide**. See Benzoyl-propionitrile.
- $\beta$ -Benzoyl- $\alpha$ -ethylpropionic acid** (*benzoylvaleric acid*) (DITTRICH and PAAL), 1889, A., 257.
- $\beta$ -Benzoyl- $\alpha$ -ethylsuccinic acid** (DITTRICH and PAAL), 1889, A., 257.
- Benzoyl-eugenol**, dibromo- (WOY), 1890, A., 638.
- Benzoyliso-eugenol** (TIEMANN), 1892, A., 46.
- Benzoylformic acid**. See Phenylglyoxylic acid.
- Benzoylformoxime**, configuration of (SÖDERBAUM), 1891, A., 1043.  
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- Benzoylglutarimidoxime** (GARNY), 1892, A., 138.
- Benzoyl- $\alpha$ -glyoxylic acid**,  $\alpha$ -amido- (*quinisatic acid*), and its salts (v. BAEYER and HOMOLKA), 1884, A., 79.
- $\omega$ -Benzoylhexoic acid** and its oxime (KIPPING and PERKIN), 1889, T., 350; P., 79.
- Benzoylhomobenzenyl-**. See Benzoyl-hydroxytolenyl-.
- Benzoylhomocoonic acid**, and its salts (SCHOTTEN and BAUM), 1885, A., 176.
- Benzoylhomopiperidic acid**. See  $\delta$ -Benzamidovaleric acid.
- Benzoylhydrochlorocarboxime** (WALLACH), 1892, A., 1348.
- $\beta$ -Benzoylhydrocinnamic acid** (JAPP and MILLER), 1885, T., 32.
- Benzoylhydroxycocoylacetic acid** (EINHORN), 1889, A., 168.
- Benzoylhydroxyethylpyridine** (KLEIN), 1890, A., 1437.
- Benzoylhydroxyhydrazobenzene** (GOLDSCHMIDT and BRUBACHER), 1891, A., 1210.
- $\alpha$ -Benzoylhydroxynaphthaquinone** (KEGEL), 1888, A., 1308.
- Benzoylhydroxypropylpiperidine** (LAUN), 1884, A., 1055.
- Benzoyl- $p$ -hydroxytolenylamidoxime** (SCHUBART), 1886, A., 798.
- Benzoylhydroxytropine** and its salts (LADENBURG), 1883, A., 671.
- Benzoylindole** (RUHEMANN and BLACKMAN), 1889, T., 617.
- Benzoylindolecarboxylic acid** (RUHEMANN and BLACKMANN), 1889, T., 617.
- Benzoyldiiodophenol** (SCHALL), 1883, A., 1109.
- Benzoylisatin and benzoylisatinic acid** (SCHOTTEN), 1891, A., 723.
- Benzoyllimonene nitrosochloride** (WALLACH), 1892, A., 1348.
- Benzoylmesitylene** (*trimethylbenzophenone*) (LOUISE), 1883, A., 577.
- Benzoylmesitylenic acids** (LOUISE), 1886, A., 353.
- Benzoyl- $p$ -methoxybenzenylamidoxime** (MILLER), 1889, A., 254.
- Benzoylmethylecgonine**. See Cocaine, under Alkaloids.
- Benzoylmethyl- $\alpha$ -cyanide**, imido-. See Phenylimidopropionitrile.
- Benzoyl-2'-methylindole** (FISCHER and WAGNER), 1887, A., 588.
- 3-Benzoyl-2'-methylquinoline** (*benzoylquinaldine*) (HINZ), 1888, A., 300.
- Benzoylmethyltaurine** (GABRIEL and HEYMANN), 1891, A., 701.
- Benzoyl-2'-methyltetrahydroquinoline**, oxidation and nitro-derivatives of (WALTER), 1892, A., 882.
- Benzoylmethyltrimethylene** (PERKIN and STENHOUSE), 1892, T., 86.
- Benzoylmethyltrimethylenecarboxylic acid** and its oxime (PERKIN and STENHOUSE), 1892, T., 84.
- $\alpha$ -Benzoylnaphthaquinol** (KEGEL), 1888, A., 1308.
- Benzoylnaphthaquinones**,  $\alpha$ - and  $\beta$ - (KEGEL), 1888, A., 1307.
- Benzoyl- $\beta$ -naphthenylamidoxime** (RICHTER), 1890, A., 62.
- Benzoylnicotenylamidoxime** (MICHAELIS), 1892, A., 207.
- Benzoylnitrophenylpyrazolecarboxylic acid** (MEYER), 1889, A., 516.
- Benzoylnitrosoresorcinol**, ethyl ether of (KRAUS), 1892, A., 45.
- Benzoyloscine** (HESSE), 1892, A., 1498.
- Benzoylosotriazole** (BALTZER and v. PECHMANN), 1891, A., 1118.
- Benzoyloxybutyric trichloride**, tertiary (WILLGERODT and DÜRR), 1889, A., 690.
- Benzoylparaleucaniline** (RENOUF), 1883, A., 981.
- $p$ -Benzoylphenetol** (*ethoxybenzophenone*) (GATTERMANN, EHRHARDT, and MAISCH), 1890, A., 964.
- Benzoylphenol**. See Hydroxybenzophenone.
- Benzoylphenylacetaldehyde** (CLAISEN and MEYEROWITZ), 1890, A., 359.



- Benzoylphenylamidoacetic acid** (RE-BUFFAT), 1887, A., 1108.
- Benzoylphenylazimethylene** (CURTIUS and THUN), 1891, A., 1357.  
reactions of (CURTIUS and LANG), 1892, A., 451.
- Benzoylphenylbenzaldehyde hydrazine** (RUHEMANN and BLACKMAN), 1889, T., 615.
- Benzoylphenyl-*o*-benzoic acid** (ELBS), 1890, A., 514.
- Benzoylphenylbenzidinehydrazide** (MICHAELIS and SCHMIDT), 1887, A., 820.
- Benzoylphenyl-carbizine and -thiocarbizine** (FREUND and GOLDSMITH), 1888, A., 1187.
- 2-Benzoyl-1-phenyl-3:4-dimethylpyrazolone** (NEF), 1892, A., 146.
- Benzoylphenylenediphenylmethane** (HANNOT and SAINT-PIERRE), 1889, A., 882.
- Benzoylphenylhydrazide** (RUHEMANN and BLACKMAN), 1889, T., 612; P., 127.
- Benzoylphenylhydrazide.** See also Benzophenylhydrazide.
- Benzoylphenylhydrazidepyruvic acid** (RUHEMANN and BLACKMAN), 1889, T., 616.
- Benzoylphenylhydrazimethylene** (CURTIUS and THUN), 1891, A., 1356.
- Benzoylphenyldiodomethane** (*phenyl diiodobenzyl ketone*) (CURTIUS and LANG), 1892, A., 451.
- 2-Benzoyl-1-phenyl-3-methylpyrazolone and its 4-bromo-derivative** (NEF), 1892, A., 146.
- 4-Benzoyl-1-phenyl-3-methylpyrazolone** (NEF), 1892, A., 146.
- p*-Benzoylphenylsemithiocarbazide** (RUHEMANN and BLACKMAN), 1889, T., 615.
- $\beta$ -Benzoyl- $\beta$ -phenylpropionic acid** (*deoxybenzoïnacetic acid*) (MEYER and OELKERS), 1888, A., 704; (KNOEVENAGEL), 1888, A., 706; 1892, A., 1002.
- Benzoyl-1-phenylpyrazole** (BALBIANO), 1890, A., 798.
- Benzoylphenylsemicarbazide** (RUHEMANN and BLACKMAN), 1889, T., 614.
- Benzoylphthalic acid** (*benzophenonedicarboxylic acid*) (ROSPENDOWSKI), 1886, A., 626.
- Benzoylphthalo- $\psi$ -cumidide** (FRÖHLICH), 1884, A., 1319.
- Benzoylphthalo- $\psi$ -cumidic acid** (FRÖHLICH), 1885, A., 154.
- Benzoylphthalo-*p*-toluidide** (FRÖHLICH), 1885, A., 155.
- $\beta$ -Benzoylpicolinic acid** (BERNTHSEN and METTEGANG), 1887, A., 737.
- Benzoylpipecoline** (BUNZEL), 1889, A., 904.
- Benzoylpiperidine, amido- and *m*-nitro-, and their derivatives** (SCHOTTEN), 1888, A., 1105.
- Benzoylpropaldehyde** (CLAISEN and MEYEROWITZ), 1890, A., 358.
- $\beta$ -Benzoylpropion-*o*-carboxylic acid and its salts** (ROSER), 1885, A., 267.
- $\alpha$ -Benzoylpropionitrile** ( *$\alpha$ -benzoyl ethyl cyanide*) and its imido-derivative (v. MEYER), 1889, A., 577.
- Benzoylpropionic acid** (FITTIG and LEONI), 1890, A., 895.  
oximes of (DOLLFUS), 1892, A., 1202.  
phenylhydrazone (KUES and PAAL), 1886, A., 355.
- Benzoyl- $\beta$ -propionic acids, alkylated** (CLAUS), 1887, A., 827.
- Benzoylisopropyl-*o*-carboxylic acid.** See Phenyl isopropyl ketone *o*-carboxylic acid.
- Benzoylpropylegonine** (NOVY), 1887, A., 1126.
- Benzoylpropyl-*d*-eegonine hydrochloride** (EINHORN and MARQUARDT), 1890, A., 913.
- Benzoylpropylic alcohol** (*phenyl hydroxypropyl ketone*), and its oxime (MARSHALL and PERKIN), 1891, T., 886.
- Benzoyl- $\alpha$ - and - $\beta$ -pyridyllactic acids** (EINHORN), 1890, A., 521; 1892, A., 76.
- $\psi$ -Benzoylpyrroline** (CIAMICIAN and DENNSTEDT), 1885, A., 379.
- Benzoylpyruvic acid** (BEYER and CLAISEN), 1887, A., 944.  
preparation of (BRÖMME and CLAISEN), 1888, A., 691.  
oxime of (SALVATORI), 1892, A., 304.
- Benzoylquinol** (KLINGER and STANDKE), 1891, A., 900.
- Benzoylresorcinol, nitro-** (ERRERA), 1886, A., 51.
- Benzoylretene** (LOUISE and PERRIER), 1892, A., 1205.
- Benzoylsalicylamidoxime** (SPILKER), 1890, A., 143.
- Benzoylscooletin** (TAKAHASHI), 1889, A., 256.
- $\beta$ -Benzoylisosuccinic acid** (BISCHOFF), 1883, A., 912; 1886, A., 355; (KUES and PAAL), 1886, A., 354.
- Benzoylsuccinimidoxime** (GARNY), 1892, A., 137.
- Benzoylsulphobenzamidinic anhydride** (EITNER), 1892, A., 713.

- Benzoyltannin** (BÜTTINGER), 1890, A., 163.
- Benzoyltetrahydroquinoline** (HOFFMANN and KOENIGS), 1883, A., 1144.
- Benzoyltetramethylene** (PERKIN), 1883, A., 1084.
- Benzoyltetramethylenecarboxylic acid** (PERKIN), 1883, A., 1084.
- Benzoyldithionaphthol**. See **Dibenzoyl-disulphhydronaphthalene**.
- Benzoyl-*p*-toluic acid** (ELBS and LARSEN), 1885, A., 261.
- 1'-Benzoyltolylamido-1:4-naphthaquinone** (KEGEL), 1888, A., 1308.
- Benzoyl-*o*-tolylthiocarbamide** (DIXON), 1889, T., 622.
- Benzoyltrihydroxybenzamidopyrroline** (RÜGHEIMER), 1889, A., 1210.
- Benzoyltrimellitic acid** (ELBS), 1887, A., 942.
- Benzoyltrimethylene** (PERKIN), 1885, T., 840.  
reduction of (MARSHALL and PERKIN), 1891, T., 885.  
oxime of (PERKIN), 1884, A., 1155; 1885, T., 845; (PERKIN and STENHOUSE), 1892, T., 86.
- Benzoyltrimethylenecarboxylic acid** and its salts (PERKIN), 1884, A., 64; 1885, T., 836.  
action of hydrobromic acid on (PERKIN), 1885, T., 842.  
action of water on (FREER and PERKIN), 1887, T., 837.  
reduction of (MARSHALL and PERKIN), 1891, T., 884.  
oxime of (MARSHALL and PERKIN), 1891, T., 883.
- Benzoyltriphenylpropiomethylamide**, and its distillation (KLINGEMANN and LAYCOCK), 1891, T., 147.
- Benzoyltropeine** (LADENBURG), 1883, A., 671.
- Benzoyl- $\psi$ -tropeine** (LIEBERMANN), 1891, A., 1265.
- Benzoylvaleric acid** ( *$\beta$ -benzoyl- $\alpha$ -ethyl-propionic acid*) (DITTRICH and PAAL), 1889, A., 257.
- Benzoylxylenylamidoxime** (OPPENHEIMER), 1890, A., 49.
- Benzyl, bis-*o*-chloronitrosyl-** (BEHREND and NISSEN), 1892, A., 1200.  
nitro-, chlorides of *o*- and *m*- (ABELLI), 1883, A., 1092.  
*bis*nitrosyl- (*dinitrosotoluene*) (BEHREND and KONIG), 1890, A., 1122.  
*bis-p*-nitronitrosyl- (BEHREND and KÖNIG), 1891, A., 1035.
- Benzyl acetoxime** and its hydrochloride (JANNY), 1883, A., 581.
- Benzyl isoamyl and isobutyl ethers**, decomposition of, by heat and by nitric acid (ERRERA), 1887, A., 1103.
- Benzyl ethyl ether** (MÜLLER), 1886, A., 875.  
*p*-chloro- and *p*-bromo-, and their decomposition by heat and by nitric acid (ERRERA), 1887, A., 1103.  
*o*-chloro-*p*-nitro- (WITT), 1892, A., 445.
- Benzyl mercaptan, *p*-bromo-** (JACKSON and HARTSHORN), 1884, A., 665.  
*o*-cyano- (DAY and GABRIEL), 1890, A., 1250.
- Benzyl methyl ether**, action of phosphoric chloride on (COLSON), 1885, A., 252.  
*o*-chloro-*p*-nitro- (WITT), 1892, A., 444.
- Benzyl methyl ketone**, bromodinitro- (JACKSON and MOORE), 1889, A., 781; 1890, A., 773.  
*trinitro-* (DITTRICH), 1890, A., 1419.
- Benzyl selenomercaptan, *o*-cyano-** (DRORY), 1891, A., 1460.
- Benzyl tolyl ketone**. See **Tolyl benzyl ketone**.
- Benzyl *o*-, *m*-, and *p*-xylyl ketones** (WEGE), 1892, A., 338.
- Benzylacetamide, *o*-amido-** (GABRIEL and JANSEN), 1890, A., 1442.  
*p*-nitro- (AMSEL and v. HOFMANN), 1886, A., 698; (HAFNER), 1889, A., 982; 1890, A., 486.
- Benzylacetanilide** (MELDOLA and SALMON), 1888, T., 780.  
*o*-amido- (PAAL and KRECKE), 1892, A., 80.  
*o*-nitro- (PAAL and KRECKE), 1890, A., 1443.
- Benzylacetoacetic acid** (CERESOLE), 1883, A., 41.
- Benzylacetomethylamide, *o*-nitro-, and *o*-amido-** (GABRIEL and JANSEN), 1892, A., 218.
- Benzylacetone, *m*-amido-** (V. MILLER and ROHDE), 1890, A., 1138.  
nitroso- (CERESOLE), 1883, A., 41.
- Benzylacetone-*o*-carboxylic acid** (BÜLOW), 1887, A., 144.
- Benzylaceto-*p*-nitranilide** (MELDOLA and SALMON), 1888, T., 779.
- Benzylacetophenone** (*phenyl phenylethyl ketone*) (SCHNEIDEWIND), 1888, A., 705; (PERKIN and STENHOUSE), 1891, T., 1007.  
reduction of (PERKIN and STENHOUSE), 1891, T., 1008.  
oxime of (PERKIN and STENHOUSE), 1891, T., 1008.

- Benzylaceto-*p*-toluidide**, *o*-amido- (SÖDERBAUM and WIDMAN), 1890, A., 1258.
- Benzylacetoxyphosphinous acid** (*acetoxybenzylphosphinous acid*) (VILLE), 1890, A., 619.
- Benzylacetylglutaric acid** (FITTIG and CHRIST), 1892, A., 963.
- Benzylallylthiocarbamide** (DIXON), 1891, T., 559.
- "Benzylalsorbitol"** (MEUNIER), 1890, A., 730.
- Benzylamarine**, and its derivatives (CLAUS and ELBS), 1883, A., 982; (CLAUS and KOHLSTOCK), 1885, A., 1132.
- benzoylchloride (CLAUS and SCHERBEL), 1886, A., 238.
- platinochloride (CLAUS and ELBS), 1883, A., 982.
- Benzylamidoacetic acid**, benzylamide of (HINSBERG), 1892, A., 1458.
- o*-**Benzylamidoacetophenone**, and its nitroso-derivative (v. BAEYER), 1884, A., 1021.
- Benzylamidobenzeneazo- $\alpha$ ' and - $\beta$ -naphthols** (MELDOLA and COSTE), 1889, T., 596.
- Benzylamidobenzoic acid** (CLAUS and GLYCKHERR), 1883, A., 1009.
- Benzylamidodimethylaniline** (KOHLER), 1888, A., 50.
- Benzyl-*p*-amidodiphenylamine** (HENCKE), 1890, A., 609.
- Benzylamidosulphonic acid** (SCHMIDT), 1892, A., 476.
- Benzylamine** (CURTIUS and LEDERER), 1887, A., 40.
- preparation of (HOOGWERFF and VAN DORP), 1887, A., 245; (GOLDSCHMIDT), 1887, A., 249.
- heat of formation of (PETIT), 1888, A., 1239.
- action of bromine on (WALLACH), 1891, A., 189.
- action of carbonyl chloride on (KÜHN and RIESENFELD), 1892, A., 312.
- condensation of, with furfuraldehyde (DE CHALMOT), 1892, A., 1452.
- action of, on glycol chlorhydrin (GOLDSCHMIDT and JAHODA), 1891, A., 1351.
- action of, on methylenic chloride (KEMPF), 1890, A., 887.
- action of sulphur on (WALLACH), 1891, A., 189.
- compounds of, with mercuric chloride (ANDRÉ), 1891, A., 1030.
- hydrogen malate, action of heat on (GIUSTINIANI), 1892, A., 820.
- Benzylamine**, *o*-amido- (GABRIEL), 1887, A., 1037.
- m*-amido- (GABRIEL and HENDESS), 1888, A., 144.
- p*-amido-, and its salts (AMSEL and v. HOFMANN), 1886, A., 698; (HAFNER), 1889, A., 982; (SALKOWSKI), 1889, A., 1174.
- di*-iodo- (BILTZ), 1892, A., 1449.
- o*-nitro- (GABRIEL), 1887, A., 1037; (GABRIEL and JANSEN), 1892, A., 217.
- m*-nitro- (GABRIEL and HENDESS), 1888, A., 144.
- primary, and tertiary, and their amido-compounds (BORGEMANN), 1886, A., 56.
- p*-nitro- (HAFNER), 1890, A., 486.
- hydrochloride (HAFNER), 1889, A., 982.
- di*-*o*-nitro- (GABRIEL and JANSEN), 1892, A., 218.
- tri*-nitro- (MARQUARDT), 1886, A., 615.
- Benzylamine-*p*-carboxylic acid** (GÜNTHER), 1890, A., 977.
- Benzylammonium succinates** and their derivatives (WERNER), 1889, T., 627; P., 127.
- thiocyanate (DIXON), 1891, T., 553.
- Benzylangelicalactone** (ERDMANN), 1890, A., 376.
- Benzylaniline**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 296.
- action of sulphur on (WALLACH), 1891, A., 189.
- Benzylaniline**, amido-. See Benzylphenylenediamine.
- o*-chloro-*p*-nitro- (WITT), 1892, A., 445.
- o*-nitro-, and its derivatives (LELLMANN and STICKEL), 1886, A., 793.
- reduction of (PAAL and KRECKE), 1890, A., 1444.
- p*-nitroso- (FISCHER and HEPP), 1890, A., 614; (BOEDDINGHAUS), 1891, A., 1205.
- Benzylisoanisaldoxime** (GOLDSCHMIDT), 1890, A., 1262.
- $\gamma$ -**Benzylanthracene** (BACH), 1890, A., 1145.
- Benzylanthracenesulphonic acid**, barium salt of (BACH), 1890, A., 1145.
- Benzylanthranol** (BACH), 1890, A., 1425.
- Benzylarbutin** (SCHIFF), 1884, A., 432.
- Benzylarsines** (MICHAELIS and PAETOW), 1885, A., 526.



- Benzylbarbituric acid** (CONRAD and GUTHZEIT), 1883, A., 314.
- Benzylbenzaldoximes,  $\alpha$ - and  $\beta$ -** (BECK-MANN), 1889, A., 607, 608.
- Benzylisobenzaldoxime** (BEHREND and KÖNIG), 1890, A., 1123.  
constitution of (BEHREND), 1889, A., 979.  
interaction of, with phenylic cyanate (GOLDSCHMIDT), 1890, A., 1412.  
nitro-, isomeric forms of (BEHREND and KÖNIG), 1890, A., 1412; 1891, A., 1034.  
*m*-nitro- (BEHREND), 1892, A., 50.
- Benzylbenzamide, *o*-amido-, and *o*-nitro-** (GABRIEL and JANSEN), 1890, A., 1442.
- Benzylbenzenylamidine** (KEHRMANN and MESSINGER), 1892, A., 1110.
- Benzylbenzenylamine.** See Dibenzylamine.
- Benzylbenziloximes** (AUWERS and MEYER), 1889, A., 609; (AUWERS and DITTRICH), 1889, A., 1192.
- m*-Benzylbenzoic acid, and its salts** (SENEFF), 1884, A., 428.
- Benzylbenzylidenediamidophenylamine** (MELDOLA and COSTE), 1889, T., 594.
- Benzylborneols** (HALLER), 1892, A., 73.
- Benzylbromazimidobenzene** (ZINCKE and ARZBERGER), 1889, A., 502.
- Benzylisobutylamine** (ZAUNSCHIRM), 1888, A., 1077.
- Benzylisobutylcarbamide** (KÜHN and RIESENFELD), 1892, A., 312.
- Benzylcamphor** (HALLER), 1891, A., 1498; 1892, A., 73.
- Benzylcamphoroxime** (HALLER), 1892, A., 73.
- $\gamma$ -Benzyl- $\delta$ -caprolactone.** See  $\delta$ -Hydroxy- $\gamma$ -benzylhexoic acid, lactone of.
- Benzylcarbamide, *o*-nitro-** (GABRIEL and JANSEN), 1892, A., 218.  
*p*-nitro- (HAFNER), 1889, A., 982; 1890, A., 486.
- Benzylcarbamine** (SCHNEIDEWIND), 1888, A., 705.
- Benzylchloroethylamine hydrochloride** (GOLDSCHMIEDT and JAHODA), 1891, A., 1351.
- Benzyl-*o*-chloroisobenzaldoxime, *o*-chloro-** (BEHREND and NISSEN), 1892, A., 1199.
- Benzyl-*p*-chlorodeoxybenzoin** (PETRENKO-KRITSCHENKO), 1892, A., 1227.
- Benzylchrysanioline** (TRILLAT and DE RACZKOWSKI), 1892, A., 1095.
- Benzylcinchonidine** (CLAUS), 1892, A., 1251.
- Benzylcinnamic acid** (MICHAEL and PALMER), 1885, A., 987; (OGLIALORO-TODARO), 1891, A., 76.
- Benzyl-*o*- and -*p*-cresols, nitro-derivatives of** (STAEDEL), 1883, A., 863.
- Benzyl-compounds, *p*-bromo-** (JACKSON and HARTSHORN), 1884, A., 665.
- Benzylcycanocamphor and its *o*-nitro-derivative** (HALLER), 1891, A., 1499.
- Benzyldeoxybenzoin** (MEYER and OELKERS), 1888, A., 703.  
*p*-amido-, and *o*- and *p*-nitro- (BUDDEBERG), 1890, A., 1142.
- Benzylidazoamidobenzene** (FRISWELL and GREEN), 1886, T., 749.
- Benzylidihydro-anthracene and -anthranol** (BACH), 1890, A., 1425.
- Benzylidihydropyrrolidine** (ANDERLINI), 1890, A., 65, 1430.
- Benzylidihydroxy-cinchotenidine and -cinchotenine** (CLAUS), 1892, A., 1250, 1251.
- Benzyl dimethylamine** (JACKSON and WING), 1887, A., 721.  
*m*-nitro- (BORGSMANN), 1886, A., 57.
- o*-Benzyl-*m*-dimethylbenzoic acid** (GRESLY), 1886, A., 1029.
- Benzyl dimethylcarbamide** (HINRICHSSEN), 1889, A., 391.
- Benzyl dimethylsuccinic acid** (BISCHOFF), 1891, A., 829.
- Benzyl dimethylthiocarbamide** (HINRICHSSEN), 1889, A., 391.
- Benzyl diphenyl-.** See Diphenylbenzyl-.
- Benzyl diisopropylamine** (UEBEL), 1888, A., 1079.
- Benzyl durene, preparation of** (BEAUREPAIRE), 1889, A., 966.
- Benzylisodurene** (ESSNER and GOSSIN), 1885, A., 253.
- Benzylene.** See Benzylidene.
- "Benzylenes,  $\alpha$ - and  $\beta$ ," and a nitro-derivative of** (GLADSTONE and TRIBE), 1885, T., 450.
- Benzylethanetricarboxylic acid** (*phenylpropanetricarboxylic acid*) (FITTIG and RÖDERS), 1890, A., 896.
- Benzylethylacetic acid.** See Phenylvaleric acid.
- Benzylethylamarine** (CLAUS and KOHLSTOCK), 1885, A., 1133.
- Benzylethylamidobenzenephosphinic chloride** (MICHAELIS and SCHENCK), 1891, A., 437.
- Benzylethyl-*m*-amidophenol, *o*-amido-** (LELLMANN and BOYE), 1890, A., 1116.  
*o*-nitro-, hydrochloride (LELLMANN and BOYE), 1890, A., 1116.
- Benzylethylamine** (ZAUNSCHIRM), 1888, A., 1077; (KRAFT), 1891, A., 51.

- Benzylethylaniline** (FRIEDLÄNDER), 1889, A., 606.
- Benzylethylanilinesulphonic acid**, sodium salt of (MICHAELIS and GODCHAUX), 1890, A., 611.
- Benzylethylglutaric acid** (GUTHZEIT and DRESSEL), 1891, A., 179.
- s*-Benzylethylsuccinic acid** (BISCHOFF and WALDEN), 1889, A., 959.
- Benzylethyl*di*thiocarbamic acid** (ZAUNSCHIRM), 1888, A., 1077.
- Benzylethylthiocarbamide** (DIXON), 1889, T., 300.
- Benzylethyl-*p*-toluidine** (RABAUT), 1892, A., 313.
- Benzylfenchylamine** (WALLACH and GRIEPENKERL), 1892, A., 1239.
- Benzylformamide**, *o*-nitro- (GABRIEL and JANSEN), 1890, A., 1443.
- Benzylformanilide** (PICTET and CRÉPIEUX), 1888, A., 689.
- o*-nitro- (PAAL and BUSCH), 1890, A., 72.
- Benzylformimide hydrochloride** (PINNER), 1883, A., 1089.
- Benzylformo-*o*- and -*p*-toluidides**, *o*-nitro- (PAAL and BUSCH), 1890, A., 73.
- Benzylformylcamphor** (CLAISEN), 1891, A., 574.
- Benzylfumaramic acid** (GIUSTINIANI), 1892, A., 821.
- Benzylfumarimide** (GIUSTINIANI), 1892, A., 821.
- Benzylfurfuraldoxime** (WERNER), 1890, A., 1267; (GOLDSCHMIDT and ZANOLI), 1892, A., 1434.
- Benzylfurfuryl**. See Furfurylphenylethane.<sup>5</sup>
- Benzylglyoxaline** (WALLACH), 1883, A., 911.
- Benzylhemipinamic acid** (GOLDSCHMIEDT), 1888, A., 1117.
- Benzylhemipinisoimide** (GOLDSCHMIEDT), 1888, A., 1117.
- $\alpha$ -Benzylhomophthalamide**. See *o*-Carboxyphenylbenzylacetamide.
- $\alpha$ -Benzylhomopiperidinic acid** (ASCHAN), 1891, A., 467.
- Benzylhydratropic acid**. See Diphenylbutyric acid.
- Benzylhydroxyanthranol** (LEVI), 1885, A., 1240; (LINEBARGER), 1892, A., 346.
- Benzylhydroxydiphenylmaleide** (COHN), 1892, A., 483.
- Benzylhydroxyhexoic acid**, salts of (FITTIG and CHRIST), 1892, A., 963.
- Benzylhydroxylamine**, formula of (MEYER), 1883, A., 569.
- derivatives of (BEHREND and LEUCHS), 1889, A., 500.
- $\alpha$ -Benzylhydroxylamine** (BECKMANN), 1889, A., 608.
- $\beta$ -Benzylhydroxylamine**, and its derivatives (BECKMANN), 1889, A., 608; (BEHREND and LEUCHS), 1889, A., 704; (BEHREND and KÖNIG), 1891, A., 1033.
- mono*- and *di*-*o*-chloro- (BEHREND and NISSEN), 1892, A., 1199, 1200.
- m*-nitro- (BEHREND), 1892, A., 51.
- p*-nitronitroso-, and nitroso- (BEHREND and KÖNIG), 1891, A., 1034, 1035.
- Benzylhydroxylamines**, oxidation of (KOTHE), 1892, A., 316.
- Benzyllic acetate**, action of chlorine and bromine on, and its reactions (SEELIG), 1889, A., 598.
- acetoacetate, action of sulphuric acid on (v. PECHMANN), 1883, A., 808.
- alcohol, dispersive power of (BARBIER and ROUX), 1889, A., 805.
- o*-amido-, and its derivatives (SÖDERBAUM and WIDMAN), 1889, A., 972; 1890, A., 178; (SÖDERBAUM), 1890, A., 1254.
- p*-amido-, and its derivatives (O. and G. FISCHER), 1891, A., 695.
- p*-bromo- and *p*-chloro-derivatives (ERRERA), 1889, A., 247.
- o*-chloro-*p*-amido-, and *o*-chloro-*p*-nitro- (WITT), 1892, A., 445.
- p*-nitro- (HAFNER), 1890, A., 486.
- preparation and condensation products of (BASLER), 1884, A., 310.
- allophanate and phenylallophanate (TRAUBE), 1889, A., 393, 964.
- bromide, action of the copper-zinc couple on (GLADSTONE and TRIBE), 1885, T., 448; P., 60.
- p*-bromo-, formation of, from *p*-bromotoluene (SCHRAMM), 1885, A., 379.
- o*-chloro-*p*-nitro- (TIEMANN), 1891, A., 704.
- derivatives of (WITT), 1892, A., 444.
- o*-cyano- (DRORY), 1891, A., 1461.
- chloracetates (SEUBERT), 1888, A., 456.
- chloride, action of bromine on (SRPEK), 1891, A., 44; (ERRERA), 1891, A., 1020.
- action of copper on (ONUFROWICZ), 1884, A., 1133.
- action of potassium carbonate on (MEUNIER), 1883, A., 58.
- action of powdered zinc on (PROST), 1886, A., 1034.
- chloride, amido- (BORGSMANN), 1886, A., 56.

- Benzyl chloride**, *o*-cyano- (GABRIEL and OTTO), 1887, A., 1035; (DAY and GABRIEL), 1890, A., 1249; (DRORY), 1891, A., 1460.
- action of, on ethylic sodacetate and on ethylic sodomalonate (HAUSMANN), 1889, A., 1172.
- m*-cyano- (REINGLASS), 1891, A., 1344.
- p*-cyano- (MELLINGHOFF), 1890, A., 239; (REINGLASS), 1891, A., 1344.
- derivatives of (GÜNTHER), 1890, A., 977.
- nitro-, reduction of (PELLIZZARI), 1885, A., 770.
- o*-nitro- (KUMPF), 1884, A., 1004; (NÖLTING), 1884, A., 1005; 1885, A., 52.
- p*-nitro- (KUMPF), 1884, A., 1004.
- cyanide. See Phenylacetoneitrile.
- ether, *p*-bromo-, and *p*-chloro- (ERRERA), 1889, A., 248.
- o*-, *m*- and *p*-nitro- (ERRERA), 1889, A., 248.
- hydroxycamphocarboxylate (MINGUIN), 1892, A., 74.
- imidodicarbothioxyrate (FROMM), 1892, A., 844.
- imidodiphenylthiocarbamate (WERNER), 1892, P., 97.
- imidophenylthiocarbamate (WERNER), 1890, T., 296.
- iodides, *o*- and *p*-nitro- (KUMPF), 1884, A., 1004.
- methyl selenide, *o*-cyano- (DRORY), 1891, A., 1461.
- sulphide (OBERMEYER), 1888, A., 124.
- o*-cyano- (DAY and GABRIEL), 1890, A., 1250.
- nitrate, *p*-nitro- (STAEDEL), 1883, A., 866.
- phenylimidophenylbenzylthiocarbamate (WERNER), 1892, P., 97.
- phenylimidophenylthiocarbamate (WERNER), 1890, T., 298.
- picrate, *p*-nitro- (KUMPF), 1884, A., 1005.
- diselenide and selenocyanate, *o*-cyano- (DRORY), 1891, A., 1460, 1461.
- sodium thiosulphate (PURGOTTI), 1890, A., 1419.
- sulphide, platinum compounds of (LÖNDAHL), 1889, A., 368.
- disulphide, *di*-*o*-cyano- (DAY and GABRIEL), 1890, A., 1251.
- mono*- and *di*-sulphides, *p*-bromo- (JACKSON and HARTSHORN), 1884, A., 665.
- Benzyl chloride**, *mono*- and *di*-sulphides, *o*-nitro- (JAHODA), 1890, A., 488.
- $\Delta^2$  *cis*trans tetrahydroterephthalate (v. BAEYER and HERB), 1890, A., 1134.
- thiocyanate, *o*-cyano- (DAY and GABRIEL), 1890, A., 1249.
- thiocarbamate, preparation, reactions and properties of (WERNER), 1890, T., 293.
- o*-toluate, action of sodium on (HODGKINSON), 1891, P., 167.
- o*-tolylcarbamate (GATTERMANN and CANTZLER), 1892, A., 832.
- tricarallylate (DÄUMICHEN), 1889, A., 238.
- Benzylideneacetone**. See Styryl methyl ketone.
- Benzylideneacetophenone** (CLAISEN and PONDER), 1884, A., 1167.
- Benzylideneamidocarbazole** (MAZZARA and LEONARDI), 1892, A., 616.
- p*-Benzylideneamidodimethylaniline (CALM), 1885, A., 388.
- Benzylidene-*p*-amidodiphenylamine** (HENCKE), 1890, A., 609.
- Benzylideneamidoguanidine** (THIELE), 1892, A., 1297.
- Benzylidene-*o*-amidophenol** (PICTET and ANKERSMIT), 1892, A., 196.
- Benzylidene-*p*-amidophenol** (HAEGELE), 1892, A., 1451.
- Benzylideneamidophenyltolylamine** and its *p*-nitro-derivative (REICHOLD), 1890, A., 610.
- Benzylideneaniline** (HANTZSCH), 1891, A., 50.
- Benzylideneanthrone**, amido- (BACH), 1890, A., 1425.
- Benzylideneantipyrin** (KNORR), 1884, A., 1378.
- Benzylideneazine**, and its *o*-nitro-derivative (CURTIUS and JAY), 1889, A., 393.
- Benzylidenebenzamide** (BECKMANN), 1891, A., 194.
- Benzylidenebenzenylamidine** (PINNER), 1889, A., 1005.
- Benzylidenebenzidine**, *m*-nitro- (SCHIFF and VANNI), 1890, A., 1298.
- nitro-derivatives of (BARSIŁOWSKY), 1892, A., 854.
- Benzylidenebisdiphenylpyrazolone** (KNORR and KLOTZ), 1887, A., 1121.
- Benzylidenebishydroxynaphthaquinone** (ZINCKE and THELEN), 1888, A., 1097.
- Benzylidenebiuret** (ABEL), 1891, A., 702.
- Benzylideneisobutylamine** (ZAUN-SCHIRM), 1888, A., 1077.
- Benzylidenecamphor** (HALLER), 1891, A., 1498.



- Benzylidenecarbaminethioglycollic acid** (ANDREASCH), 1889, A., 960.
- Benzylidenecarbimidoacetic acid** (ANDREASCH), 1889, A., 960.
- Benzylidene-*o*-carboxylic acid** (RACINE), 1887, A., 951.
- Benzylidene-*di*-and-*tetra*-chlorophthalides** (GABRIEL and HENDESS), 1888, A., 145.
- 4-Benzylidene-2:4:6-collidine-3:5-dicarboxylic acid** (EPSTEIN), 1886, A., 258.
- Benzylidene-cinchonic and -cinchoxinic acids** (CLAUS), 1892, A., 1489.
- Benzylidene-compounds** (*benzal-*, *benzylene-compounds*) (KÖHLER), 1888, A., 49.  
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- Benzylidenecyanacetic acid** (FIQUET), 1892, A., 1340.
- Benzylidenediacetonealkamine, and the action of sulphuric acid on** (FISCHER), 1884, A., 54.
- Benzylidenediacetoneamine, and its derivatives** (FISCHER), 1884, A., 54, 1291; (ANTRICK), 1885, A., 503.
- Benzylidenediacetoneine** (FISCHER), 1884, A., 1291.
- Benzylidenedibenzoylacetic acid** (BUCHNER and CURTIUS), 1885, A., 1238.
- Benzylidenedibenzylimide** (FISCHER), 1886, A., 546.
- Benzylidenediethyldisulphone** (FROMM), 1890, A., 56.
- Benzylidenediketohydrindene** (WISLIGENUS and KÖTZLE), 1889, A., 1068.
- Benzylidenedimethyldisulphone, *m*-nitro-** (BONGARTZ), 1886, A., 938.
- Benzylidenedimethylethylenediamine** (MASON), 1887, A., 494.
- Benzylidene-*p*-dimethylphenylenediamine** (CALM), 1885, A., 388.
- Benzylidenedi- $\alpha$ -naphthol and -naphthylie oxide** (CLAISEN), 1887, A., 270.
- Benzylidenediphenyldisulphone** (LAVES), 1892, A., 612.
- Benzylidenedipiperyl** (LAUN), 1884, A., 1011.
- Benzylidenediisopropylindole** (DENNSTEDT), 1889, A., 401.
- Benzylidenediisopropylmethylenediamine** (MASON), 1887, A., 493.
- Benzylidenedisulphone** (BONGARTZ), 1886, A., 938.
- Benzylidene-ethylamine** (ZAUNSCHIRM), 1888, A., 1077.
- Benzylideneglucoheptitol** (FISCHER), 1892, A., 1168.
- Benzylideneglycoldinaphthylacetal** (CLAISEN), 1887, A., 270.
- Benzylidenehomo-*o*-phthalethylimide** (PULVERMACHER), 1887, A., 1111.
- Benzylidenehomo-*o*-phthalimide** (GABRIEL), 1887, A., 726.
- Benzylidenehydrazine** (CURTIUS and PELUG), 1892, A., 456.
- Benzylidenehydrazineacetic acid** (CURTIUS), 1891, A., 56.
- Benzylidenehydrazinebenzenesulphonic acid** (PFÜLF), 1887, A., 933.
- Benzylidenehydrazinebenzoic acid** (RODER), 1887, A., 150.
- Benzylidenehydrazine and its derivatives** (CORNELIUS and HOMOLKA), 1886, A., 1026.
- Benzylideneimide** (LELLMANN and STICKEL), 1886, A., 794; (PINNER), 1889, A., 983.
- Benzylideneimides, formation of** (LELLMANN and PEKRUN), 1891, A., 88.
- o*-Benzylideneindole** (HAUSMANN), 1889, A., 1172.
- Benzylidenelepidine.** See **Benzylidene-4-methylquinoline.**
- Benzylidenelevulinic acid** (ERDMANN), 1886, A., 241.  
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*di*bromide (ERLENMEYER), 1890, A., 496.
- Benzylidenelevulinic acids,  $\beta$ - and  $\delta$ -** (ERDMANN), 1890, A., 1129.
- Benzylidene-2:6-lutidine and its reduction** (SCHUSTER), 1892, A., 1360.
- Benzylidenemalonic acid** (STUART), 1883, T., 405; 1886, T., 357; (CLAISEN and CRISMER), 1884, A., 444.  
*o*-chloro-, *o*-bromo-, and *o*-iodo- (STUART), 1887, P., 118; 1888, T., 141.  
*o*-nitro-, reduction of (STUART), 1888, T., 143.  
*p*-nitro- (STUART), 1883, T., 409.  
*o*-, *m*-, and *p*-nitro- (STUART), 1885, T., 155; P., 4.  
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- Benzylidenementhylurethane** (ARTH), 1886, A., 893.
- Benzylidenemethylamine** (ZAUNSCHIRM), 1888, A., 1077.
- Benzylidene-2'-methylindole** (FISCHER), 1887, A., 265.  
*m*-amido-, and *m*-nitro- (FISCHER), 1888, A., 284.
- Benzylidene-3'-methylindole** (WENZING), 1887, A., 957.

- Benzylidene-2'-methylquinoline** and its salts (JACOBSEN and REIMER), 1884, A., 336; (v. MILLER), 1891, A., 1096.  
 amido- [m.p. 172°] (BULACH), 1889, A., 528.  
*m*-amido- [m.p. 158°] (WARTANIAN), 1891, A., 330.  
 3-nitro- (WARTANIAN), 1891, A., 330.  
 4-nitro- (BULACH), 1887, A., 976.
- Benzylidene-4'-methylquinoline**, *m*-amido- (HEYMANN and KOENIGS), 1888, A., 1114.  
*m*-nitro- (HEYMANN and KOENIGS), 1888, A., 853.
- Benzylidene-4'-methylquinoline-4-sulphonic acid** (BUSCH and KOENIGS), 1890, A., 1435.
- Benzylidene-*p*-nitraniline** (v. MILLER and PLÖCHL), 1892, A., 1194.
- Benzylidene-*m*-nitrobenzenylamid-oxime**, *m*-nitramido- (STIEGLITZ), 1890, A., 256.
- Benzylidenephthalimidine** (GABRIEL), 1885, A., 1229.
- Benzylidenephthalide** and its derivatives (GABRIEL), 1885, A., 902, 1229; 1888, A., 143.  
 dibromide (GABRIEL), 1885, A., 165.  
 $\omega$ -cyano- (GABRIEL), 1885, A., 902.
- iso*Benzylidenephthalide** (GABRIEL), 1885, A., 1230; 1888, A., 144.
- Benzylidenephthalimidine** and its nitro-derivatives (GABRIEL), 1885, A., 1229, 1230.
- iso*Benzylidenephthalimidine** (GABRIEL), 1885, A., 1231; 1886, A., 266.  
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- Benzylidenepinylamine** (WALLACH and LORENTZ), 1892, A., 997.
- Benzylidenepiperazine** (SCHMIDT and WICHMANN), 1892, A., 211.
- $\alpha$ -Benzylidenepropionic acid**. See  $\alpha$ -Methylcinnamic acid.
- Benzylidenepropylamine** (ZAUNSCHIRM), 1888, A., 1077.
- Benzylidenequinaldine**. See Benzylidene-2'-methylquinoline.
- Benzylidenequinoline-3-carboxylic acid** (v. MILLER), 1890, A., 1325.
- Benzylidenerhodanic acid** and its salts (NENCKI and BOURQUIN), 1885, A., 40; (BONDZYŃSKI), 1887, A., 1109.  
 $\alpha$ -amido- (BONDZYŃSKI), 1887, A., 1109.
- Benzylidenesemicarbazide** (THIELE), 1892, A., 1297.
- Benzylidenescatole**. See Benzylidene-3'-methylindole.
- Benzylidenesulphonaphthionic acid**, sodium salt of (KAFKA), 1891, A., 721.
- Benzylidenesulphonic acid phenylhydrazone**, sodium salt of (KAFKA), 1891, A., 720.
- Benzylidenethiobiuret** (BRODSKY), 1887, A., 580.  
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- Benzylidenedithioglycollic acid** (BONGARTZ), 1888, A., 478.
- Benzylidenethiohydantoic acid** (ANDREASCH), 1888, A., 48.
- Benzylidenetolylene** (LIPPMANN), 1887, A., 151.
- 4-Benzylidene-2:4:6-trimethylpyridine-3:5-dicarboxylic acid**. See 4-Styryl-2:6-dimethylpyridine-3:5-dicarboxylic acid.
- Benzylidene-*p*-xylydine**, and its *m*-nitro-derivative (PELUG), 1890, A., 606.
- Benzylidene chloride**, condensation of, with benzene (LINEBARGER), 1892, A., 719.  
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- Benzylimidobenzylcarbaminothioethyl** (REIMARUS), 1887, A., 43.
- Benzylindigo** (v. BAEYER), 1884, A., 1021.
- 1'-Benzylindole** (ANTRICK), 1885, A., 543.
- 1'-Benzylindole-2'-carboxylic acid** (ANTRICK), 1885, A., 543.
- Benzylidene**, cyano- (WACHE), 1889, A., 684.
- Benzyl- $\psi$ -isatin** (ANTRICK), 1885, A., 543.
- Benzyllepidine**. See Benzyl-4'-methylquinoline.
- Benzyllevulinic acid**, and its bromo-derivative (ERDMANN), 1890, A., 376.
- Benzylmalamic acid** (GIUSTINIANI), 1892, A., 822.
- Benzylmalimides**,  $\alpha$ - and  $\beta$ - (GIUSTINIANI), 1892, A., 821.

- Benzylmalon-*o*-carboxylic acid** (WISLICHENUS), 1888, A., 150.
- Benzylmalondiamide** (BISCHOFF and SIEBERT), 1887, A., 952.
- Benzylmalonic azoimide and phenylhydrazide** (RUHEMANN and MORRELL), 1892, T., 796.
- Benzylmesitylene** (LOUISE), 1883, A., 323.
- Benzylmethylacetone** (*phenyl isopropyl methyl ketone*) (v. MILLER and ROHDE), 1890, A., 1138.
- Benzylmethylacetoximic acid.** See Benzylmethylglyoxime.
- Benzylmethylamarine** (CLAUS and KOHLSTOCK), 1885, A., 1133.
- Benzylmethylamidobenzenephosphinic acid and chloride** (MICHAELIS and SCHENK), 1891, A., 437.
- Benzylmethylaniline, *p*-nitroso-** (BOEDDINGHAUS), 1891, A., 1206.
- Benzylmethylanilinesulphonic acid, sodium salt of** (MICHAELIS and GODCHAUX), 1890, A., 611.
- o*-Benzyl-*m*-methylbenzoic acid** (GRESLY), 1886, A., 1028.
- Benzylmethylbromobenzeneazamonium iodide** (ZINCKE and ARZBERGER), 1889, A., 502.
- Benzylmethylcarbinol** (*phenyl isopropyl alcohol*) (ERRERA), 1887, A., 35.
- Benzylmethylglyoxime** (SCHRAMM), 1883, A., 590.
- diacetyl-derivative of (SCHRAMM), 1884, A., 52.
- Benzylmethylketonesulphonic acid** (KRECKELER), 1887, A., 141.
- $\mu$ -Benzyl- $\beta$ -methylloxazoline** (ELFELDT), 1892, A., 214.
- Benzyl-2'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 858.
- Benzyl-4'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 853.
- nitrate (HEYMANN and KOENIGS), 1888, A., 1114.
- Benzylmethylsuccinic acid** (BISCHOFF and KUHLEBERG), 1890, A., 1134.
- Benzylmethylsuccinic anhydride** (BISCHOFF and MINTZ), 1890, A., 774.
- Benzylmethylsulphide-*o*-carboxylic acid** (DAY and GABRIEL), 1890, A., 1251.
- Benzylmethylthiocarbamide** (DIXON), 1889, T., 619.
- Benzylmethyl-*o*- and -*p*-toluidines** (RABAUT), 1892, A., 313.
- Benzylmethyluracil** (HAGEN), 1888, A., 582.
- Benzylmethyl-*m*-xylylidine** (JABLINGONNET), 1892, A., 1320.
- Benzylmorpholine** (GOLDSCHMIEDT and JAHODA), 1891, A., 1351.
- Benzyl-naphthalenes,  $\alpha$ - and  $\beta$ -** (VINCENT and ROUX), 1884, A., 609; (ROUX), 1888, A., 1306.
- Benzyl-narcotine and its salts** (CLAUS and RITZEFELD), 1885, A., 997.
- Benzyl-*m*- and -*p*-nitranilines** (MELDOLA and STREITFELD), 1887, T., 113.
- Benzyl-nitroarbutin** (SCHIFF), 1884, A., 433.
- Benzyl-*p*-nitrobenzaldoxime** (BEHREND and KÖNIG), 1891, A., 1035.
- Benzyl-*m*-nitroisobenzaldoxime** (GOLDSCHMIEDT), 1890, A., 1262.
- Benzyl-*p*-nitroisobenzaldoxime, *p*-nitro-** (BEHREND and KÖNIG), 1891, A., 1034.
- Benzyl-*m*- and -*p*-nitroisobenzaldoximes, intramolecular change of** (BEHREND), 1892, A., 50.
- Benzyl-*p*-nitro- $\beta$ -benzylhydroxylamine, oxidation of** (BEHREND and KÖNIG), 1891, A., 1034; 1892, A., 1456.
- Benzyl-dinitro-*o*-cresol, nitro-** (STAEDEL), 1883, A., 864.
- Benzyl-dinitrophenol, nitro-** (STAEDEL), 1883, A., 864.
- Benzyl-nitroquinol** (SCHIFF), 1884, A., 433.
- Benzyl-dinitroquinol** (PELLIZZARI), 1884, A., 437.
- Benzyl-nitrosoacetone, an isomeride of** (MEYER and CERESOLE), 1883, A., 572.
- Benzyl-cenanthaldoxime** (GOLDSCHMIEDT and ZANOLI), 1892, A., 1436.
- Benzylloxanthranol** (BACH), 1890, A., 1144, 1425.
- Benzyl-oxycarbamide** (BEHREND and LEUCHS), 1889, A., 501.
- Benzyl-oxyl-*p*-chlorobenzophenone** (DEMUTH and DITTRICH), 1891, A., 314.
- Benzyl-oxyl- $\alpha$ -naphthylthiocarbamide** (VOLTMER), 1891, A., 559.
- Benzyl-oxyl-terephthalic acid** (v. BAeyer and TUTEIN), 1889, A., 1181.
- Benzyl-oxyl-*o*-tolylthiocarbamide** (VOLTMER), 1890, A., 1127; 1891, A., 558.
- Benzyl-oxyl-tribenzylammonium iodide** (WALDER), 1886, A., 796; 1887, A., 246.
- Benzylpapaveraldineammonium hydrate** (GOLDSCHMIEDT), 1888, A., 1117.
- $\mu$ -Benzylpentoxazoline** (ELFELDT), 1892, A., 215.
- Benzylphenol, nitro-derivatives of** (STAEDEL), 1883, A., 863.



- p*-Benzylphenol and its derivatives (RENNIE), 1886, T., 406; P., 184.
- Benzyl-*o*-phenylenediamine (SÖDERBAUM and WIDMAN), 1890, A., 1258.
- Benzyl-*m*-phenylenediamine (MELDOLA and COSTE), 1889, T., 597.
- Benzyl-*m*- and -*p*-phenylenediamines, oxidation of a mixture of (MELDOLA and COSTE), 1889, T., 598.
- Benzyl-*p*-phenylenediamine (MELDOLA and COSTE), 1889, T., 591; (BOEDINGHAUS), 1891, A., 1205.
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- nitro- (LITTHAUER), 1889, A., 1168.
- Benzylphosphinous acid (LETTS and BLAKE), 1890, A., 766.
- Benzylphthalidine, and its nitroso-derivative (GABRIEL), 1885, A., 903.
- Benzylphthalimide (GABRIEL), 1887, A., 1037.
- o*-cyano- (GABRIEL), 1887, A., 1038.
- m*-cyano- (REINGLASS), 1891, A., 1345.
- p*-cyano- (GÜNTHER), 1890, A., 977.
- o*-nitro- (GABRIEL), 1887, A., 1037.
- m*-nitro- (GABRIEL and HENDESS), 1888, A., 144.
- p*-nitro- (HAFNER), 1889, A., 982; (SALKOWSKI), 1889, A., 1174.
- Benzylphthalimidine (GABRIEL), 1888, A., 143.
- p*-amido- (HAFNER), 1889, A., 982; 1890, A., 487.
- Benzylpicmelic acid, attempt to prepare (PERKIN and PRENTICE), 1891, T., 847.
- Benzylpiperidine and its derivatives (LELLMANN and PEKRUN), 1891, A., 88.
- β*-Benzylpiperidine (ASCHAN), 1891, A., 1247.
- β*-Benzylpiperidone, and its nitroso-derivative (ASCHAN), 1891, A., 467, 1247.
- Benzylpropylene- $\psi$ -thiocarbamide (DIXON), 1891, T., 560.
- Benzylpropylnitramine (SIMON-THOMAS), 1891, A., 168.
- Benzylpurpuric acid (CONRAD and GUTHZEIT), 1883, A., 315.
- Benzylpyridine and its derivatives (LELLMANN and PEKRUN), 1891, A., 90.
- Benzylpyridyl chloride and platino-chloride (ÉDINGER), 1890, A., 794.
- Benzylpyrrolone, and action of acetic anhydride on (CIAMICIAN and SILBER), 1887, A., 843.
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- Benzylquinine hydrate, action of benzylic chloride on (MAZZARA and POSSETTO), 1884, A., 466.
- Benzylquinoline, bromo-, halogen-derivatives of (CLAUS), 1885, A., 908.
- 3-Benzylquinoline (MANNS), 1889, A., 261.
- Benzylquinolinecarboxylic acid (CLAUS), 1885, A., 908.
- Benzylquinoline- $\gamma$ -carboxylic acid, betaine of (CLAUS), 1892, A., 1488.
- Benzylquinolinium hydroxide (BERNTSEN and HESS), 1885, A., 559.
- Benzylquinols (SCHIFF), 1884, A., 432; (PELLIZZARI), 1884, A., 437.
- Benzylresorcinols (PELLIZZARI), 1884, A., 438.
- Benzylrosanilinedisulphonic acids, preparation of (DAHL), 1887, A., 579.
- Benzylsuccinamic acid and its amide and imide (WERNER), 1889, T., 629, 630, 632.
- Benzylsuccinic acid (PERKIN), 1888, T., 10; (BISCHOFF and MINTZ), 1890, A., 774; (FITTIG and RÖDERS), 1890, A., 895; (BISCHOFF and v. KÜHLBERG), 1890, A., 1135.
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- Benzylsuccinic anhydride (FITTIG and RÖDERS), 1890, A., 896.
- Benzylsulphonethiobenzylmethylmethane (LAVES), 1892, A., 613.
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- Benzyltetrahydroquinoline, derivatives of (LELLMANN and PEKRUN), 1891, A., 89.
- Benzylthiocarbamide (DIXON), 1891, T., 552; (SALKOWSKI), 1891, A., 1474.
- Benzylthiocarbimide (MEYER), 1891, A., 1214.
- preparation of (WERNER), 1891, T., 407; (DIXON), 1891, T., 552.
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- Benzylthiosulphonic acid. See Toluene *exo*-thiosulphonic acid.
- Benzylthiosulphuric acid (PURGOTTI), 1890, A., 1419.

- Benzyl-dithiourethane** (DIXON), 1888, P., 34.
- m-Benzyltoluene**, and its reduction products and *d*-nitro-derivative (SEFF), 1884, A., 427.
- Benzyl-o-toluidine** (RABAUT), 1892, A., 48.
- Benzyl-o- and -m-toluidines**, *p*-nitroso- (BOEDDINGHAUS), 1891, A., 1206.
- Benzyl-p-toluidine** (RABAUT), 1892, A., 313.
- o*-amido- (SÜDERBAUM and WIDMAN), 1890, A., 1258.
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- o*-nitro-, and its derivatives (LELLMANN and STICKEL), 1886, A., 793.
- Benzyl-o-toluidinesulphonic acid** (RABAUT), 1892, A., 313.
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- Benzyltriethylphosphonium chloride**, action of heat on (COLLIE), 1888, T., 723.
- Benzyltriethylphosphonium salts**, action of heat on (COLLIE), 1887, A., 1106.
- Benzyltrimethylammonium chloride and hydroxide**, action of heat on (COLLIE and SCHRYVER), 1890, T., 778.
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- Benzylvalerolactone** (ERDMANN), 1890, A., 376.
- Benzyl-violet**, manufacture of (MÜHLHÄUSER), 1889, A., 609.
- Benzyl-m-xylidine** (JABLIN-GONNET), 1892, A., 314.
- nitro- (JABLIN-GONNET), 1892, A., 1320.
- Benzyl-p-xylidine** (PFLUG), 1890, A., 606.
- Benzyl-m-xylidinesulphonic acid** (JABLIN-GONNET), 1892, A., 1320.
- Benzyl-m-xylithiocarbamide** (DIXON), 1891, T., 557.
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- Berberal**, and its synthesis and hydrolysis (PERKIN), 1890, T., 1062, 1064, 1079.
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- Berberideæ**, alkaloids of (HESSE), 1887, A., 283; (SCHMIDT and KERSTEIN), 1890, A., 648; (RÜDEL), 1892, A., 641; (SCHMIDT), 1892, A., 1498.
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- Beresite** (ARZRUNI), 1886, A., 995.
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**4:1-Bromido- $\beta$ -naphthylamine** (MELDOLA and DESCH), 1892, T., 767; P., 141.

**4:1:2-Bromidonitronaphthalene** (MELDOLA and DESCH), 1892, T., 767.

**$p$ -Brom- $o$ -iodo- $o$ -nitrophenol**, calcium-derivative of (LING), 1888, P., 122; 1889, T., 61.

**diBromisatic acid** (v. BAEYER and OECONOMIDES), 1883, A., 202.

**Bromisatin**, *mono*- and *di*-, ethers of (v. BAEYER and OECONOMIDES), 1883, A., 201.

**Bromisatin-blue** (SCHOTTEN), 1891, A., 1491.

***m*-Bromisatoic acid** (NIEMENTOWSKI and ROZAŃSKI), 1889, A., 996.  
derivatives of (DORSCH), 1886, A., 359.

**Bromlite** (*alstonite*), chemical constitution of (BECKER), 1887, A., 18.

**$\alpha$ -Bromo-acids**, preparation of (VOLHARD), 1888, A., 129.

**diBromobarbituric acid** (TRZCIŃSKI), 1883, A., 913; (BEHREND), 1887, A., 129.

**Bromobenzallylamide** (GALEWSKY), 1890, A., 953.

***o*-Bromobenamide** (SCHÖPFF), 1891, A., 296.

**3:4-diBromobenzamide** (BURGHARD; BEUTNAGEL), 1884, A., 601.

***m*-Bromobenzanilide** (KOTTENHAHN), 1891, A., 1237.

**triBromobenzanilide** (BORRELLI), 1888, A., 1292.

**Bromobenzene**. See Benzene.

**Bromobenzene iodochlorides**, *mono-p*- and *tri*- (WILLGERODT), 1886, A., 342.

***p*-Bromobenzenediazo-*p*-toluidide**, methylation of (MELDOLA and STREATFIELD), 1889, T., 433; P., 98.

***p*-Bromobenzenesulphinic acid** (KÖNIG), 1892, A., 1091.

**Bromobenzenesulphonic anhydrides**, 1:4:2-*di*- and 1:2:4:5-*tri*- (ROSENBERG), 1886, A., 551.

***p*-Bromobenzenesulphonic chloride** (KRAFFT and ROOS), 1892, A., 1220.

**Bromobenzidine** (*bromodiamidodiphenyl*) (JANOVSKY and ERB), 1887, A., 479.

**Bromobenzoic acid**. See Benzoic acid.

***o*-Bromobenzoic chloride** (SCHÖPFF), 1891, A., 295.

***p*-Bromobenzoic chloride** (SCHOTTEN), 1888, A., 1106.

***p*-Bromobenzoic sulphinide** (REMSEN and BAYLEY), 1887, A., 145; (DE ROODE), 1891, A., 1227.

**Bromobenzonitrile**. See Benzonitrile.

**Bromobenzophenone**. See Benzophenone.

***m*-Bromobenzophenoneoximes** (KOTTENHAHN), 1891, A., 1236.

***p*-Bromobenzophenoneoximes** (SCHÄFER), 1891, A., 1235.

***m*-diBromobenzophenoneoxime** (DEMUTH and DITTRICH), 1891, A., 315.

- di*Bromobenzoylengenol (WOY), 1890, A., 638.
- 4-Bromo-2-benzoyl-1-phenyl-3-methylpyrazolone (NEF), 1892, A., 146.
- p*-Bromobenzyl ethyl ether and its decomposition by heat and by nitric acid (ERRERA), 1887, A., 1103.
- p*-Bromobenzyl mercaptan (JACKSON and HARTSHORN), 1884, A., 665.
- p*-Bromobenzyl-compounds (JACKSON and HARTSHORN), 1884, A., 665.
- p*-Bromobenzyl alcohol derivatives (ERRERA), 1889, A., 247.  
bromide, formation of, from *p*-bromotoluene (SCHRAMM), 1885, A., 379.  
oxide (ERRERA), 1889, A., 248.  
*mono*- and *di*-sulphides (JACKSON and HARTSHORN), 1884, A., 665.
- o*-Bromobenzylidenemalonic acid (STUART), 1887, P., 118; 1888, T., 141.
- Bromobenzyllevulinic acid (ERDMANN), 1890, A., 376.
- Bromobenzylquinoline, halogen derivatives of (CLAUS), 1885, A., 908.
- p*-Bromobenzylsulphonic acid (JACKSON and HARTSHORN), 1884, A., 665.
- tetra*Bromoberberine hydrobromide (GAZE), 1890, A., 1012.
- Bromobassic acid (HOLT), 1892, A., 429.
- tri*Bromobrazilein (SCHALL and DRALLE), 1890, A., 997.
- tri*Bromobrazilin dibromide (SCHALL and DRALLE), 1889, A., 56.
- Bromobrazilins (v. BUCHKA and ERCK), 1885, A., 907; (SCHALL and DRALLE), 1889, A., 1004.
- ω*-*o*-*tri*Bromacetamidacetophenone (v. BAEYER and BLOEM), 1884, A., 1026.
- αβ*-*di*Bromobutaldehyde (NATTERER), 1883, A., 965.
- tetra*Bromotributane (WILLGERODT and DÜRR), 1889, A., 689.
- tri*Bromoisobutane (NORTON and WILLIAMS), 1887, A., 712.
- di*Bromobutinine (*erythrene*) dibromide (GRIMAUZ and CLOËZ), 1887, A., 789.
- p*-Bromobutylbenzene (*bromophenylbutane*) (SCHRAMM), 1891, A., 899.
- Bromoisobutylbenzenes, *eso*- and *3:5-di* (*dibromophenylbutanes*) (GELZER), 1889, A., 43, 45.
- p-βγ-tri*Bromobutylbenzene (SCHRAMM), 1891, A., 899.
- di*Bromo-*n*-butylene. See *iso*Butinene dibromide.
- iso*Bromo-*ψ*-butylene, conversion of crotonylene hydrobromide into (PÜCKERT), 1889, A., 576.
- Bromobutylenes (REBOUL), 1892, A., 127.
- Bromobutylic alcohol, tertiary (GUAR-ESCHI and GARZINO), 1888, A., 437; (GARZINO), 1889, A., 951.
- αβ*-*di*Bromobutyramide (LIPPMANN), 1892, A., 27; (SCHINDLER), 1892, A., 33.
- p*-Bromoisobutyranilide (BARDWELL), 1886, A., 52.
- α*-Bromoisobutyranilide (BISCHOFF), 1891, A., 828.
- Bromobutyric acids. See Butyric acids.
- Bromobutyrotribromide, tertiary (WILLGERODT and DÜRR), 1889, A., 689.
- γ*-Bromobutyronitrile (GABRIEL), 1890, A., 360.
- di*Bromobutyronitrile (PALMER), 1889, A., 686.
- Bromocamphor. See Camphor.
- Bromocamphorsulphonic acid (MARSH), 1890, T., 833.
- Bromocamphorsulphonic acids, *α*- and *β*-, and their salts (MARSH and COUSINS), 1891, T., 971.
- α*-Bromocamphorsulphonic chloride (MARSH and COUSINS), 1891, T., 974.
- Bromocarbanilidocyanmethine (KELLER), 1885, A., 961.
- Bromocarbostyryl, 2-, 3-, and 4- (WELTER), 1891, A., 1248.
- 4'-Bromocarbostyryl (FRIEDLÄNDER and WEINBERG), 1883, A., 351.
- Bromocarmines, *α*- and *β*- (WILL and LEYMAN), 1886, A., 252, 253.
- Bromocarvacrol derivatives (MAZZARA and PLANCHER), 1892, A., 156.
- Bromocrotic acid (MARIE), 1892, A., 1302.
- Bromochromic acid, non-existence of (RAWSON), 1889, A., 678.
- Bromopocinchine (COMSTOCK and KOENIGS), 1888, A., 71.
- α*-Bromocinnamaldoxime (NAAR), 1891, A., 563.
- Bromocinnamic acid. See Cinnamic acid.
- α*-Bromocinnamide (ANSCHÜTZ and SELDEN), 1887, A., 829.
- Bromocitracon-*p*-bromanil (MORAWSKI and KLAUDY), 1888, A., 53.
- Bromocitraconimides, *mono*- and *di*- (MENDINI), 1885, A., 1126.
- Bromocodeine, non-nitrogenous compounds from (v. GERICHEN and SCHRÖTTER), 1883, A., 221.
- Bromo-*p*-coumaric acid dibromide (EIGEL), 1887, A., 1110.
- Bromocoumarone (KRAEMER and SPILKER), 1890, A., 496.
- Bromo-*p*-cresols, *mono*- and *di*- (SCHALL and DRALLE), 1885, A., 146.



- Bromocrotonic acids** (MICHAEL and PENDLETON), 1888, A., 1176; (FITTIG and CLUTTERBUCK), 1892, A., 961.
- Bromo-*n*- and -*iso*-crotonic acids,  $\alpha$ - and  $\alpha\beta$ -** (WISLICHENUS, TEISLER and LANGBEIN), 1889, A., 236.
- tri*Bromooctoacetylquercetin** (LIEBERMANN), 1884, A., 1365.
- Bromooctylbenzene** (*bromophenyloctane*) (AHRENS), 1887, A., 133.
- $\gamma$ -Bromoisooctoic acid** (FITTIG and SCHNEEGANS), 1890, A., 591.
- Bromooctylthiophen** (v. SCHWEINITZ), 1886, A., 535.
- p*- $\alpha\beta$ -*tri*Bromocumene** (SCHRAMM), 1891, A., 898.
- o*-Bromo-*n*-cumene** (CLAUS and WELZEL), 1890, A., 503.
- p*-Bromo-*n*-cumene** (MEYER), 1886, A., 945; (CLAUS and WELZEL), 1890, A., 503.
- Bromo- $\psi$ -cumene** (WALLACH and HEUSLER), 1888, A., 362.  
preparation of (SÜSSENGUTH), 1883, A., 469.  
action of sulphuric acid on (JACOBSEN), 1889, A., 994.
- di*Bromo- $\psi$ -cumene and its derivatives** (JACOBSEN), 1886, A., 710.
- Bromo- $\psi$ -cumenesulphonic acids** (JACOBSEN), 1886, A., 709; 1889, A., 994.
- o*-Bromo-*p*-cumeic acids** (FILETI), 1891, A., 1023.
- p*-*di*Bromoisocumic acid** (FILETI and BONISCONTRO), 1892, A., 605.
- Bromo- $\psi$ -cumeic acid and its salts** (SÜSSENGUTH), 1883, A., 469.
- di*Bromocumylacetic acid**, oxidation products of (FILETI and BASSO), 1891, A., 1057; (FILETI and BONISCONTRO), 1892, A., 604.
- o*-Bromocumylacrylic acid** (WIDMAN), 1891, A., 69.
- Bromocuremins, *tetra*- and *penta*-** (JACKSON and MENKE), 1883, A., 481.
- p*-Bromo-*m*-cyanobenzoic acid** (SCHÖPFF), 1892, A., 337.
- Bromocymenes.** See Cymene.
- Bromocymene- $\beta$ -sulphonamide** (REMSEN and DAY), 1884, A., 456.
- Bromocymenesulphonic acids.** See Cymenesulphonic acid.
- tri*Bromo-*m*-isocymenol** (JESURUN), 1886, A., 697.
- Bromocymo-quinols and -quinones.** See Cymoquinols.
- Bromodaturic acid** (GÉRARD), 1892, A., 582.
- Bromodecyl acetate** (GROSJEAN), 1892, A., 691.
- Bromodehydracetic acid** (PERKIN and BERNHART), 1884, A., 1121; (PERKIN), 1887, T., 490; (FEIST), 1892, A., 584.
- Bromodehydrobenzylloxanthranol** (BACH), 1890, A., 1145.
- di*Bromodehydronicotine** (PINNER), 1892, A., 1497.
- di*Bromodeoxybenzoin-*p*-carboxylic acid** (BUCHER), 1890, A., 168.
- Bromodeoxypyranilpyroic acid**, Reiser's (ANSCHÜTZ and HENSEL), 1889, A., 258.
- di*Bromodiacetyl** (*dibromodimethyl diketone*) (FITTIG, DAIMLER and KELLER), 1889, A., 491.
- s*-*tetra*Bromodiacetyl** (KELLER), 1890, A., 359.
- di*Bromodiacetylbrazelein** (SCHALL and DRALLE), 1890, A., 997.
- tri*Bromodianilidopyruvic acid** (BÖTTINGER), 1891, A., 1054.
- di*Bromodianthranyl** (LIEBERMANN and GIMBEL), 1887, A., 965; (SACHSE), 1888, A., 1201.
- Bromodianthranyls, *di*- and *hexa*-** (SACHSE), 1890, A., 638.
- Bromodiazol-.** See Diazo- under Azo-.
- di*Bromodi- $\psi$ -cumenol**, and methyl ether of (AUWERS), 1886, A., 144.
- Bromo-1:3-diethoxybenzenes,  $\alpha$ - and  $\beta$ -** (HERZIG and ZEISEL), 1890, A., 1404.
- di*Bromo-3:5-diethoxytoluene** (HERZIG and ZEISEL), 1890, A., 1405.
- Bromodithylæsculetin** (WILL), 1884, A., 69.
- di*Bromodiethylsulphonemethane** (BAUMANN), 1887, A., 124.
- di*Bromodifurfurodiacetylene** (GIBSON and KAHNWEILER), 1890, A., 960.
- hexa*Bromodihydrobenzene** (THEURER), 1888, A., 1085.
- Bromodihydronaphthalene** (AGRESTINI), 1883, A., 346.
- di*Bromodihydroxydiphenylamine** (MÖHLAU), 1884, A., 594.
- Bromodihydroxyphenylbutyrolactone** (FISCHER and STEWART), 1892, A., 1447.
- di*Bromo-3:6-dihydroxy-1:4-terephthalic acid** (BÖNIGER), 1888, A., 954.
- Bromodihydroxyxanthone**, derivatives of (GRAEBE and EICHENGRÜN), 1892, A., 1226.
- Bromodihydroxyxylene** [m.p. 126°] (WISCHIN), 1891, A., 74.
- di*Bromodimethoxybenzoic acid** (v. BOYEN), 1888, A., 680.
- di*Bromodimethyl diketone** (*dibromodiacetyl*) (FITTIG, DAIMLER and KELLER), 1889, A., 491.

- p* - Bromodimethylamidoazobenzene (GOLDSCHMIDT and BARDACH), 1892, A., 980.
- di*Bromo-1:3-dimethylantracene (ELBS), 1890, A., 511.
- Bromodimethylbenzoic acids and their salts (GUNTER), 1884, A., 1347.
- aa-di*Bromo-*aa*-dimethylglutaric anhydride (AUWERS and JACKSON), 1890, A., 1099.
- di*Bromodimethylheptamethylene (KIPPING and PERKIN), 1889, P., 145.
- di*Bromodimethylmalonamide (FREUND), 1884, A., 1124.
- di*Bromo-4:6-dimethylpyridine (*di-bromolutidine*) (PFEIFFER), 1887, A., 845.
- Bromo-1':4'-dimethylquinoline (KNORR), 1887, A., 160.
- Bromo-2:5-dimethylthiophens, *di*- and *tri*- (PAAL), 1885, A., 1206.
- Bromodi- $\beta$ -naphthyl ketone oxide (CLAUS and RUPPEL), 1890, A., 510.
- Bromodi- $\beta$ -naphthylamines, *tetra*- and *octo*- (RIS), 1888, A., 57.
- tetra*Bromodinaphthylene oxide (HODGKINSON and LIMPACH), 1891, T., 1100.
- di*Bromodioxydehydronicotine (PINNER), 1892, A., 1497.
- Bromodiphenic acid (CARNELLEY and THOMSON), 1885, T., 591; P., 88.
- Bromodiphenylcarbamide (GATTERMANN and CANTZLER), 1892, A., 833.
- p* - Bromodiphenylcarbamide (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- di*Bromodiphenylcarboxylic acid [m.p. 212°] (HOLM), 1883, A., 922.
- di*Bromodiphenylcarboxylic acids [m.p. 204° and 232°] (CARNELLEY and THOMSON), 1885, T., 589; P., 88.
- Bromodiphenylene ketone (CLAUS and ERLER), 1887, A., 269.
- di*Bromodiphenylene ketone (HODGKINSON and MATTHEWS), 1883, T., 165; (HOLM), 1883, A., 921; (CLAUS and ERLER), 1887, A., 269.
- Bromodiphenylene ketone oxide. See Bromoxanthone.
- tetra*Bromodiphenylfurfuran (PERKIN and SCHLOESSER), 1889, P., 163; 1890, T., 954.
- Bromodiphenylguanidine dicyanide (HIRSCH), 1888, A., 947.
- Bromodiphenylmethane, preparation of (HENDERSON), 1891, T., 731.
- di*Bromodipiperonylideneacetone (SALKOWSKI), 1891, A., 1475.
- di*Bromo-*p*-dipropylbenzene (KÖRNER), 1883, A., 322.
- tetra*Bromodipropylcarbinyl acetate (DIÉFF), 1887, A., 353.
- per*Bromodithienyl (NAHNSEN), 1885, A., 51.
- hexa*Bromodithienyltrichorethane (PETER), 1884, A., 1001.
- di*Bromoditolyl, product of the oxidation of (CARNELLEY and THOMSON), 1885, T., 592; P., 88.
- di*Bromo-*p*-ditolyltetrazine (RUHEMANN), 1889, P., 168; 1890, T., 51.
- Bromodurene (GISSMANN), 1883, A., 334.
- action of sulphuric acid on (JACOBSEN), 1888, A., 137.
- di*Bromodurene (JACOBSEN), 1888, A., 137.
- s-di*Bromethylene (*acetylenic dibromide*), molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.
- tri*Bromofluoran (MEYER and HOFFMEYER), 1892, A., 970.
- Bromofluorene (HODGKINSON and MATTHEWS), 1883, T., 165.
- $\alpha$ -*di*Bromofluorene, and fusion of, with potash (HODGKINSON and MATTHEWS), 1883, T., 164.
- $\alpha$  - *di*Bromofluorenesulphonic acid (HODGKINSON and MATTHEWS), 1883, T., 172.
- tetra*Bromofluorescein. See Eosin.
- Bromoform (GÜNTHER), 1887, A., 787.
- preparation of (ANON.), 1885, A., 463.
- preparation of, from acetone and sodium hypobromite (DENIGES), 1892, A., 126.
- obtained in the manufacture of bromine (DYSON), 1883, T., 36.
- molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.
- formation of acetylene from (CAZENEUVE), 1892, A., 421.
- chloro- (DYSON), 1883, T., 636.
- Bromoforoberberine (GAZE), 1890, A., 1012.
- Bromofulminuric acids (EHRENBERG), 1885, A., 1192.
- Bromofumaric acid (v. BANDROWSKI), 1883, A., 313.
- $\beta$ -Bromofurfuran (CANZONERI and OLIVERI), 1887, A., 658.
- Bromofurfurans, *di*- and *tetra*- (HILL), 1883, A., 912.
- aa-di*Bromofurfuran- $\beta$ -sulphonic acid (HILL and PALMER), 1889, A., 386.
- Bromofurfurylacrylic and bromofurfurylbromacrylic acids (GIBSON and KAHNWEILER), 1890, A., 960.
- Bromofurfurylbromethylene and bromofurfuryldibromopropionic acid (GIBSON and KAHNWEILER), 1890, A., 960.

- di*Bromoglutaric acid (AUWERS and BERNHARDI), 1891, A., 1191.
- Bromoguanidine (HIRSCH), 1888, A., 947.
- Bromoguanine (FISCHER and REESE), 1884, A., 467.
- tri*Bromohemimellithene (JACOBSEN), 1887, A., 36.
- Bromohemipinimide (TUST), 1892, A., 1210.
- $\gamma$ -Bromoheptic acid (FITTIG and SCHMIDT), 1890, A., 589.
- $\gamma$ -Bromoisheptic acid (FITTIG and ZANNER), 1890, A., 590.
- Bromohexadecylene (KRAFFT and REUTER), 1892, A., 1163.
- di*Bromohexahydrophthalic acid (*trans*) (V. BAeyer), 1892, A., 1216.
- di*Bromohexahydroterephthalic acid (V. BAeyer), 1887, A., 370.
- di*Bromohexoic acid, decomposition of (FITTIG and HILLERT), 1892, A., 960.
- p-di*Bromohomocuminic acid (*dibromocumylacetic acid*), oxidation products of (FILETI and BASSO), 1891, A., 105; (FILETI and BONISCONTRO), 1892, A., 604.
- di*Bromohydrazinesulphonic acid (LIMPRICHT), 1889, A., 398.
- Bromohydrazobenzene [m.p. 63°] (JANOVSKY and ERB), 1886, A., 1024.
- p*-Bromohydrazobenzene [m.p. 115°] (JANOVSKY and ERB), 1887, A., 479.
- di*Bromohydrazobenzene (JANOVSKY and ERB), 1887, A., 479.
- p*-Bromohydrazobenzene-*o*-carboxylic acid (PAAL), 1892, A., 68.
- Bromo-*p*-hydrazotoluene (JANOVSKY and ERB), 1887, A., 479.
- o*-Bromohydrindone (MIERSCH), 1892, A., 1222.
- Bromohydrindones, *m*- and *p*- (V. MILLER and ROHDE), 1890, A., 1139.
- di*Bromohydrindone (HAUSMANN), 1889, A., 1173.
- tetra*Bromohydrindone (ROSER and HASELHOFF), 1888, A., 1304.
- Bromohydrodicoumarin (DYSON), 1886, P., 250; 1887, T., 67.
- di*Bromohydrolapachol (HOOKER), 1892, T., 643; P., 125.
- Bromohydromuconic acid (V. BAeyer and RUPE), 1890, A., 876.
- di*Bromo-*p*-hydroxybenzoic acid (BALBIANO), 1883, A., 1125.
- constitution of (ALESSI), 1886, A., 65.
- p*-Bromo- $\alpha$ -hydroxy-*n*- and -*iso*-butyric acids (KOLBE), 1883, A., 573; (MELIKOFF), 1885, A., 650.
- di*Bromohydroxyacetyltolylglyoxylic acid (*dibromohydroxymethylbenzoyldicarboxylic acid*) (WILL and LEYMAN), 1886, A., 253.
- Bromohydroxycoumaric acid (OST), 1883, A., 792.
- tri*Bromohydroxyconine (V. HOFMANN), 1885, A., 563.
- Bromohydroxycymene (MAZZARA), 1886, A., 1017.
- tri*Bromohydroxydiketodihydropentene (NEF), 1890, A., 1272.
- penta*Bromohydroxydiketohexene (ZINCKE and KEGEL), 1890, A., 1109.
- 5-Bromo-4-hydroxy-2:6-dimethyl-*m*-diazine (PINNER), 1887, A., 1054.
- Bromo- $\omega$ -hydroxyethylpiperonylcarboxylic acid and anhydride (PERKIN), 1890, T., 1025.
- Bromohydroxyhydromuconic acid, lactone of (RUHEMANN and DUFTON), 1891, T., 753.
- Bromohydroxyindone (ROSER and HASELHOFF), 1888, A., 1304; (MELDOLA and HUGHES), 1890, T., 400; P., 58.
- benzylamide, hydrazone, hydrazone-hydrazone, and  $\beta$ -naphthylamide of (MELDOLA and HUGHES), 1890, T., 403; P., 58.
- Bromohydroxyketoinonaphthene (ZINCKE and GERLAND), 1888, A., 1199, 1200.
- di*Bromohydroxyketohydrindenecarboxylic acid (ZINCKE and GERLAND), 1888, A., 1199.
- Bromohydroxy- $\beta$ -methylcoumarilic acid (V. FECHMANN and COHEN), 1884, A., 1332.
- Bromohydroxy- $\beta$ -methylcoumarone (V. FECHMANN and COHEN), 1884, A., 1332.
- 5-Bromo-4-hydroxy-6-methyl-2-ethyl-*m*-diazine (PINNER), 1887, A., 1054.
- Bromohydroxymethylhydroxydrastinine methiodide (FREUND and DORMEYER), 1891, A., 1520.
- $\beta_1\beta_1\gamma_1$ -*tri*Bromo- $\alpha_1$ -hydroxy- $\gamma_1$ -methyljulolidine (REISSERT), 1892, A., 498.
- $\beta_1$ -Bromo- $\alpha_1$ -hydroxy- $\gamma_1$ -methyljuloline (REISSERT), 1892, A., 497.
- Bromo- $\alpha_1$ -hydroxy- $\gamma_1$ -methyljulolines,  $\beta_1$ -*mono*- and  $\beta_1\gamma_1$ -*di*- (REISSERT), 1892, A., 497.
- di*Bromohydroxymethylphthalic anhydride (WILL and LEYMAN), 1886, A., 253.
- Bromohydroxy- $\alpha$ -naphthaquinone [m.p. 202°] (MILLER), 1885, A., 667.



- Bromohydroxy- $\alpha$ -naphthaquinone** [m.p. 197°], action of hypochlorous and hypobromous acids on (ZINCKE and GERLAND), 1888, A., 1198.
- Bromohydroxy- $\alpha$ -naphthaquinoneoximide** (ZINCKE and GERLAND), 1887, A., 838.
- diBromohydroxynaphthaquinone** (ARMSTRONG and STREATFIELD), 1886, P., 232.
- Bromo- $\beta$ -hydroxypiperonylethylmethyl ketone** (*bromopiperonyllactyl methyl ketone*) (OELKER), 1891, A., 1476.
- $\gamma$ -Bromo- $\alpha$ -hydroxy- $\gamma$ -phenylbutyric acid** (BIEDERMANN), 1892, A., 471.
- diBromohydroxyphenylbutyronitrile** (FISCHER and STEWART), 1892, A., 1447.
- Bromohydroxyphenylcrotonic acid** (FISCHER and STEWART), 1892, A., 1447.
- 5-Bromo-4-hydroxy-2-phenyl-6-methylm-diazine** (PINNEN), 1887, A., 1053.
- 2:5-diBromo-4-hydroxyisopropylbenzoic acid** (FILETI and BONISCONTRO), 1892, A., 604.
- diBromohydroxypyridine** and its salts (LIEBEN and HATTINGER), 1883, A., 871; (KOENIGS and GEIGY), 1884, A., 1195; (FISCHER and RENOUE), 1884, A., 1370.
- Bromo-1-hydroxyquinoline** [m.p. 119°] (SCHMITT and ENGELMANN), 1888, A., 67.
- 4-Bromo-1-hydroxyquinoline** [m.p. 124°] (CLAUS and HOWITZ), 1892, A., 354.
- 4:3-diBromo-1-hydroxyquinoline** (CLAUS and POSSELT), 1890, A., 522; (CLAUS and HOWITZ), 1892, A., 354.
- 3:4:4'-triBromo-1-hydroxyquinoline** (SRPEK), 1890, A., 177; (CLAUS and HEERMANN), 1891, A., 83.
- 4-Bromo-3-hydroxyquinoline hydrobromide** (CLAUS and HOWITZ), 1892, A., 353.
- diBromo-3-hydroxyquinoline** (CLAUS and POSSELT), 1890, A., 523.
- Bromo-2'-hydroxyquinoline**. See Bromocarbostyryl.
- Bromo-1:4-hydroxyquinolinesulphonic acid** (CLAUS and POSSELT), 1890, A., 522.
- triBromohydroxyquinone** (BARTH and SCHREDER), 1885, A., 520.
- Bromohydroxytetrahydronaphthoic acid**, lactone of (v. BAEYER, SCHODER and BESEMFFELDER), 1892, A., 192.
- Bromohydroxytetrahydroquinoline hydrochloride** (SRPEK), 1890, A., 177.
- diBromohydroxytrimethyluracil** (HAGEN), 1888, A., 582.
- diBromoketoinndonaphthene** (ROSER), 1887, A., 729.
- Bromo- $\alpha$ -keto- $\gamma$ -methyl- $\beta$ -ethyljuloline** (KAYSER and REISSERT), 1892, A., 883.
- Bromoketones**, formation of, by the action of bromine on the alcohols of the ethyl series (ETARD), 1892, A., 809.
- Bromolapachol** (PATERNO), 1883, A., 211; (HOOKER), 1892, T., 638; P., 125.
- Bromolapachone** (HOOKER), 1892, T., 638; P., 125.
- Bromolauric acid** (AUWERS and BERNHARDI), 1891, A., 1190.
- Bromolevulinic acids**,  $\alpha$ -mono- and  $\alpha\beta$ -di- (WOLFF), 1891, A., 1187.
- $\beta$ -Bromolevulinic acid** (WOLFF), 1887, A., 464.
- $\beta\beta$ -diBromolevulinic acid** (WOLFF), 1891, A., 417.
- diBromolimettin** (TILDEN), 1892, T., 348; P., 33.
- Bromomaleic acid**, action of aniline on (MICHAEL), 1886, A., 698.
- diBromomaleic acid** (CIAMICIAN and SILBER), 1884, A., 1117.
- Bromomaleic bromide** (HILL and SANGER), 1884, A., 1305.
- diBromomaleinimide** (CIAMICIAN and SILBER), 1884, A., 1116; 1885, A., 993.
- diBromomaleinmethyylimide** (DE VARDA), 1889, A., 57.
- diBromomalonamide** (FREUND), 1884, A., 1124.
- diBromomalononic acid** (MASSOL), 1892, A., 1140.
- Bromomercuric acid** (NEUMANN), 1889, A., 1050.
- Bromomesitol** (SCHRAMM), 1886, A., 451.
- diBromomesitylene** from coal-tar oil (SÜSSENGUTH), 1883, A., 469.
- Bromomesitylenic acid**, preparation of, from bromomesitylene (SÜSSENGUTH), 1883, A., 469.
- diBromomesitylenic acid**, and its salts (SÜSSENGUTH), 1883, A., 470.
- Bromomesitylic bromide** (SCHRAMM), 1886, A., 451.
- diBromomethane**. See Methylenic bromide.
- diBromomethanesulphonic acid**, barium salt of (ANDREASCH), 1886, A., 786.
- diBromomethoxybenzoic acid** (PERATONER), 1887, A., 487.
- diBromomethoxymethylphthalic acid** (WILL and LEYMANN), 1886, A., 254.
- p-Bromomethoxyphenylacetic acid** (SALKOWSKI), 1889, A., 1174.

- p*-Bromomethylaniline (MELDOLA and STREATFIELD), 1889, T., 418, 425, 433; P., 98.
- Bromomethylchloroform (HENRY), 1884, A., 978.
- Bromomethylenephthalide (GABRIEL), 1885, A., 165.
- Bromo-*o*-methylethylbenzene (CLAUS and PIESZCZEK), 1887, A., 240.
- Bromomethylethylloxazolone (HANNIOT), 1891, A., 1108.
- di*Bromo- $\beta$ -methylglutaric acid (AUWERS and BEERNHARDI), 1891, A., 1191.
- tri*Bromomethylglyoxaline (WALLACH), 1883, A., 911.
- Bromomethylhydrodrastinine (FREUND and DORMEYER), 1892, A., 223.
- Bromomethylisatoid (V. BAEYER and OECONOMIDES), 1883, A., 201.
- Bromomethyloxindoles, *mono*- and *di*- (COLMAN), 1888, P., 96; 1889, T., 3, 7.
- p*-Bromomethyl- $\alpha$ -phenotriazine (BISCHLER and BRODSKY), 1890, A., 152.
- di*Bromomethylpyridine (LADENBURG), 1883, A., 672.
- 3-Bromo-1-methylquinoline, and its derivatives (ALT), 1889, A., 1214.
- Bromo-2'- and -4'-methylquinolines (MAGNANINI), 1887, A., 1113; 1890, A., 1322.
- Bromomethylquinolones (DECKER), 1892, A., 879, 880, 881.
- di*Bromomethylsuccinic acid, and its salts (CLAUS), 1883, A., 44.
- Bromomethyltarconic acid (ROSER), 1888, A., 1116.
- $\omega$ -Bromo-1:3:4-methyltetrahydropyridylethylene (EICHENGRÜN and EINHORN), 1891, A., 66.
- 3-Bromo-1-methyltetrahydroquinoline (ALT), 1889, A., 1214.
- Bromomethylthiazolecarboxylic acid (WOHMANN), 1891, A., 226.
- tri*Bromomethylthiophen (*tribromothiolen*) (MEYER and KREIS), 1884, A., 1132.
- $\gamma$ -*tri*Bromomethylthiophen, action of nitric acid on (MUEHLERT), 1885, A., 229.
- di*Bromo- $\beta$ -methylthiophen (GERLACH), 1892, A., 830.
- tri*Bromomethylthiophens, oxidation of (CIAMICIAN and ANGELI), 1892, A., 302.
- Bromomethyluracil (BEHREND), 1886, A., 338.
- Bromomimetites (DITTE), 1883, A., 783.
- Bromomyristic acid (HELL and TWERDOMEDOFF), 1889, A., 955.
- di*Bromomyristicin (SEMMLER), 1890, A., 1150.
- Bromonaphthalenes. See Naphthalene.
- Bromonaphthalenesulphonic acid. See Naphthalenesulphonic acid.
- Bromonaphthanilide (MILLER), 1885, A., 667.
- 3'-Bromo-1:2-naphthaquinol (CLAUS and PHILIPSON), 1891, A., 462.
- Bromonaphthaquinone. See Naphthaquinone.
- di*Bromonaphthastyril (EKSTRAND), 1886, A., 715.
- Bromo- $\alpha$ -naphthoic acid (EKSTRAND), 1886, A., 715.
- 1:3'-*di*Bromo-2-naphthoic acid (CLAUS and PHILIPSON), 1891, A., 462.
- Bromonaphthol. See Naphthol.
- Bromonaphtholactone (EKSTRAND), 1886, A., 716.
- Bromo- $\beta$ -naphthol-3'-sulphonic acid, derivatives of (ARMSTRONG and ROSSITER), 1889, P., 72.
- 1:3-*di*Bromo-2-naphthonitrile (CLAUS and PHILIPSON), 1891, A., 462.
- Bromonaphthylamine. See Naphthylamine.
- Bromonaphthylene-ethenylamidine (PRAGER), 1885, A., 1239.
- di*Bromo- $\alpha$ -naphthylpropionic acid (BRANDIS), 1889, A., 1200.
- Bromonicotinic acids (CLAUS and COLLISCHONN), 1887, A., 159; (SRPEK), 1890, A., 177; (CLAUS), 1892, A., 876.
- Bromonitro-*p*-acetamidobutylbenzene (GELZER), 1889, A., 44.
- Bromonitracetamidophenylacetoneitrile (GABRIEL), 1883, A., 64.
- m*-Bromo-*p*-nitracetanilide (CLAUS and SCHEULEN), 1891, A., 564.
- 3:5:4-*di*Bromonitracetanilide (CLAUS and WEIL), 1892, A., 1205.
- Bromonitro- $\beta$ -acetonephthalide, preparation of (PRAGER), 1885, A., 1239.
- Bromonitracetonephthalides (MELDOLA), 1883, T., 9; 1885, T., 499.
- $\omega$ -Bromo-*o*-nitracetophenone (GEVEKOHT), 1884, A., 445.
- $\omega$ -Bromo-*p*-nitracetophenone, derivatives of (ENGLER and ZIELKE), 1889, A., 505.
- 5-Bromo-3-nitraceto-*o*-toluidide (NIEMENTOWSKI), 1892, A., 838; (CLAUS and BECK), 1892, A., 1207.
- 5-Bromodinitraceto-*o*-toluidide (NIEMENTOWSKI), 1892, A., 838.
- 3-Bromo-5-nitraceto-*p*-toluidide (HAND), 1886, A., 1018.

- Bromonitracetylpyrrolines**, *mono-* and *di-* (CIAMICIAN and SILBER), 1887, A., 597; 1888, A., 61.
- Bromodinitrotriamidobenzene** (JACKSON and BANCROFT), 1890, A., 982.
- p*-Bromo-*m*-nitro-*p*-amidobenzophenone** (SCHÖPFF), 1892, A., 336.
- iso*-Bromonitramidoisobutylbenzene** (GELZER), 1889, A., 44.
- Bromo-*o*- and *p*-amidophenetoils**, *mono-* and *di-*, and their salts (STAEDEL), 1883, A., 663.
- Bromonitramidophenylacetic acid** (GABRIEL), 1883, A., 64.
- p*-Bromo-*o*-nitraniline** (NÖLTING and COLLIN), 1884, A., 1013.
- m*-Bromo-*p*-nitraniline** (CLAUS and SCHEULEN), 1891, A., 565.
- 3:5-*di*-Bromo-4-nitraniline** (CLAUS and WEIL), 1892, A., 1205.
- Bromonitranisole** (STAEDEL), 1883, A., 662.
- 5:2-Bromonitrazobenzene** (WILGERODT), 1888, A., 949.
- di*-Bromonitroethane**, action of zinc ethyl on (BEWAD), 1889, A., 1128.
- $\beta$ -Bromo-*m*-nitroethylbenzamide** (ELFELDT), 1892, A., 213.
- Bromonitrisatin** (DORSCH), 1886, A., 360.
- p*-Bromo-*m*-nitrobenzaldehyde** (SCHÖPFF), 1892, A., 336.
- p*-Bromo-*m*-nitrobenzamide and -anilide** (GROHMANN), 1891, A., 305.
- Bromonitrobenzene**. See Benzene.
- 1:3:6-Bromonitrobenzenesulphonic acid** (LIMPRICHT), 1885, A., 1234.
- Bromonitrobenzoic acid**. See Benzoic acid.
- Bromonitrobenzonitrile**. See Benzonitrile.
- Bromo-*m*-nitrobenzophenones**, *mono-* and *di-* (SCHÖPFF), 1892, A., 336.
- di-p*-Bromodi-*m*-nitrobenzophenone** (SCHÖPFF), 1892, A., 336.
- Bromodinitrobenzyl methyl ketone** (JACKSON and MOORE), 1889, A., 781; 1890, A., 773.
- Bromonitro-*p*-*iso*-butyl-acetanilide and -aniline** (GELZER), 1889, A., 44.
- Bromonitrocampa** (CAZENEUVE), 1885, A., 270.
- $\alpha$ -Bromo-*m*-nitrocinnamaldehyde** (NAAR), 1891, A., 563.
- $\alpha$ -Bromo-*o*-nitrocinnamic acid** (NAAR), 1891, A., 563.
- $\alpha$ -Bromo-*m*-nitrocinnamic acid** (STUART), 1886, T., 361; (NAAR), 1891, A., 564.
- 4:6-Bromonitro-*o*-cresol** (CLAUS and JACKSON), 1889, A., 128.
- 3:5:6-Bromodinitro- $\psi$ -cumene** (JACOBSEN), 1889, A., 39.
- 2:5-Bromonitrocymene** (FILETI and CROSA), 1889, A., 493.
- 3-Bromonitrocymene** (MAZZARA), 1886, A., 1016; (FILETI and CROSA), 1889, A., 494.
- 3-Bromodinitrocymene** (MAZZARA), 1886, A., 1016.
- 2-Bromodinitrocymene** (FILETI and CROSA), 1889, A., 493.
- di*-Bromodinitrocymenes** (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1200, 1201.
- Bromonitrodiazo-**. See Diazo-, under Azo.
- di*-Bromo-*mono-* and *tri*-nitrodiphenyl** (LELLMANN), 1883, A., 343.
- p*-Bromo-*o*-nitrodiphenylsemithiocarbazide** (BISCHLER and BRODSKY), 1890, A., 152.
- di*-Bromodinitro-*p*-dipropylbenzene** (FILETI), 1891, A., 1022.
- Bromonitrohydroxyuracil** (BEHREND), 1887, A., 920.
- Bromodinitromesitylene** (SÜSSENGUTH), 1883, A., 470.
- Bromonitromethane**, action of zinc ethyl on (BEWAD), 1889, A., 1128.
- Bromodinitromethane** (KACHLER and SPITZER), 1883, A., 961.
- di*-Bromodinitromethane** (LOSANITSCH), 1884, A., 277.
- formation of (LOSANITSCH), 1883, A., 564.
- chlorine-derivatives of (LOSANITSCH), 1884, A., 1107.
- 6:2:4-Bromodinitromethylaniline** (NORTON and ALLEN), 1885, A., 1214.
- 4'-Bromo-4-nitro-1'-methylquinoline** (CLAUS and DECKER), 1889, A., 728.
- Bromonitronaphthalenes**. See Naphthalene.
- 2:4:1-Bromonitronaphthol and its salts** (MELDOLA), 1885, T., 501; P., 71.
- Bromonitro- $\alpha$ -naphthylamine** (MELDOLA), 1885, T., 500; P., 71; (ARMSTRONG and ROSSITER), 1891, P., 187.
- Bromonitronaphthylene-ethenylamidine** (PRAGER), 1885, A., 1239.
- Bromonitrophenetoils** (STAEDEL), 1883, A., 662.
- di*-Bromonitrophenetol** (JACKSON and BENTLEY), 1892, A., 1182.
- tri*-Bromodinitrophenetol** (JACKSON and WARREN), 1891, A., 1026.
- Bromonitrophenols**. See Phenol.
- Bromonitrophenyl benzyl ethers** (ROLL and HÖLZ), 1885, A., 1209.



- Bromo-*m*-nitrophenyl ethyl ether** (*bromo-*m*-nitrophenetol*) (LINDNER), 1885, A., 775.
- m*-Bromodinitrophenylacetic acid** (JACKSON and ROBINSON), 1890, A., 378.
- p*-Bromo-*o*-nitrophenylhydrazine** (BISCHLER and BRODSKY), 1890, A., 151.
- 3-Bromo-6-nitrophenylphenylhydrazine** (WILLGERODT), 1888, A., 949.
- tri*-Bromonitropropane** (ASKENASY and MEYER), 1892, A., 1064.
- tetra*-Bromo-1:3-*di*-nitropropane** (KEPLER and MEYER), 1892, A., 1062.
- Bromonitropropylene** (ASKENASY and MEYER), 1892, A., 1064.
- Bromonitroquinolines, 2:2'- and 2:3'** (CLAUS and VIS), 1889, A., 281.
- 3:4-Bromonitroquinoline** (LA COSTE), 1883, A., 90; (CLAUS and ZUSCHLAG), 1890, A., 267.
- 1'-Bromonitroquinolines** (CLAUS and POLLITZ), 1890, A., 521.
- Bromonitroisquinoline, and its derivatives** (EDINGER and BOSSUNG), 1891, A., 580.
- Bromonitroquinones** (GUARESCHI and DACCOMO), 1885, A., 891.
- Bromodinitroresorcinol** (FEVRE), 1883, A., 733; (TYPKE), 1883, A., 917.
- di*-Bromonitroresorcinol** (FEVRE), 1883, A., 733.
- Bromonitrosoazobenzene** (WILLGERODT), 1888, A., 949.
- Bromonitrosoacarcacrol, constitution of** (MAZZARA), 1890, A., 884.
- di-o*-Bromonitrosophenol** (FISCHER and HEPP), 1888, A., 456.
- Bromonitrostrychnine** (BECKURTS), 1890, A., 1329.
- di*-Bromonitrotetraphthalic acids** (FILETI and CROSA), 1891, A., 1056.
- di*-Bromodinitrothiophen** (KREIS), 1884, A., 1314.
- Bromonitrothymol** (MAZZARA), 1890, A., 753.
- o*-Bromo-*p*-nitrothymol** (MAZZARA and DISCALZO), 1886, A., 1019; (MAZZARA), 1890, A., 366, 602.
- 3:6-Bromonitrotoluene** (BENTLEY and WARREN), 1890, A., 485.
- di*-Bromodinitrotoluene [2:5:4:6]** (CLAUS), 1888, A., 587.
- di*-Bromotrininitrotoluene** (PALMER), 1889, A., 390.
- 4:5-Bromonitro-*o*-toluic acid** (CLAUS and BECK), 1892, A., 1207.
- 2:(?)-Bromonitro-*p*-toluic acid** (FILETI and CROSA), 1887, A., 37.
- Bromonitro-*p*-toluic acids, 2:3-, 2:5-, and 2:6-** (CLAUS and HERBANY), 1892, A., 174.
- 3:6-Bromonitro-*p*-toluic acid** (FILETI and CROSA), 1889, A., 495.
- Bromonitro-*p*-toluic acids, 5:2- and 5:3-** (CLAUS and BEYSEN), 1892, A., 178.
- 2:5-Bromonitro-*p*-toluidine** (CLAUS and HERBANY), 1892, A., 174.
- 5:3-Bromonitro-*p*-toluidine** (HAND), 1886, A., 1018.
- 2:6-Bromonitro-*p*-toluonitrile** (CLAUS and HERBANY), 1892, A., 175.
- Bromodinitrotrianilidobenzene** (JACKSON and BANCROFT), 1890, A., 982.
- di*-Bromo-*di*- and *tetra*-nitroxanilides** (MIXTER and WILLCOX), 1888, A., 142.
- 3:4-*di*-Bromo-5-nitro-*o*-xylene** (TÖHL), 1886, A., 57.
- 4:6-Bromonitro-*m*-xylene** (AHRENS), 1892, A., 1437.
- 4-Bromo-2:6-*di*-nitro-*m*-xylene** (LELLMANN and JUST), 1891, A., 1245.
- Bromonitro-*m*-xylenesulphonic acid and its salts** (LIMPRICHT), 1885, A., 1234.
- Bromopianic acid** (TUST), 1892, A., 1209.
- Bromopianoximic anhydride** (TUST), 1892, A., 1210.
- Bromopianyl-hydrazobenzene, -phenylhydrazide, and -phenylmethylhydrazide** (TUST), 1892, A., 1210.
- a*-Bromopalmitic acid** (HELL and IORDANOFF), 1891, A., 820.
- Bromopentanes, *tri*- and *tetra*-** (HELLAND WILDERMANN), 1891, A., 162, 534.
- Bromo-*o*- and -*p*-phenetidines, *mono*- and *di*-, and their salts** (STAEDEL), 1883, A., 663.
- Bromophenols.** See Phenol.
- Bromophenol-*o*-sulphonic acid** (ALLAIN LECANU), 1889, A., 1184.
- p*-Bromo-*a*-phenotriazine** (BISCHLER and BRODSKY), 1890, A., 152.
- Bromophenylacetic acid, action of, on ethylic acetoacetate** (WELTNER), 1884, A., 746; 1885, A., 793.
- an apparent exception to the Le Bel-van't Hoff hypothesis (EASTERFIELD), 1891, T., 71.
- a*-Bromophenyl- $\beta$ -amidocrotonic acid.** See *a*-Brom- $\beta$ -anilidocrotonic acid.
- di*-Bromophenylbenzoic acid.** See *di*-Bromodiphenylcarboxylic acid.
- p*-Bromophenyltri-bromothiophen** (KUES and PAAL), 1887, A., 239.
- $\gamma\gamma$ -Bromophenylbutyric acid** (JAYNE), 1883, A., 472; (FITTIG and MORRIS), 1890, A., 891.

- Bromophenylbutyrolactone** (FITTIG, OBERMÜLLER and SCHIFFER), 1892, A., 987.
- Bromophenylcarbamide** (BERTRAM), 1892, A., 467.
- Bromophenylcrotonic acid** (KÖRNER), 1888, A., 368.
- Bromophenylcysteine**, action of acetic anhydride on (BAUMANN), 1885, A., 514.
- triBromophenyldithienyl** (RENARD), 1890, A., 1420.
- triBromophenylic benzoate** and its nitro-derivative (DACCOMO), 1885, A., 890.
- diBromophenylic carbonate** (LÖWENBERG), 1886, A., 789.
- Bromophenyllactic acid** (ERLENMEYER), 1883, A., 196.
- Bromophenyllactic acids**, optically active (ERLENMEYER), 1891, A., 1482.
- Bromophenylmethylfurfuran** *tetra-bromide* (PAAL), 1885, A., 249.
- Bromophenylmethylpyrazolone** (MÖLLENHOFF), 1892, A., 1246.
- Bromophenylmethylpyrazolones**, *mono*-, *di*-, and *tri*- (KNORR and DUDEN), 1892, A., 731.
- Bromophenyloctane** (*bromoctylbenzene*) (AHRENS), 1887, A., 133.
- Bromophenylparaconic acid** (FITTIG and LEONI), 1890, A., 894.
- az-p-Bromophenyl-ald-phenylnaphthotriazine** (MELDOLA and FORSTER), 1891, T., 690.
- 1-p-Bromophenylpiperidine** (LELLMANN and JUST), 1891, A., 1244.
- m-Bromo-β-phenylpropionic acid** (GABRIEL), 1883, A., 195.
- Bromophenylpropylene**. See Bromallylbenzene.
- 4-Bromo-1-phenylpyrazole** (BALBIANO), 1890, A., 797.
- Bromo-1-phenylpyrazoles**, *di*- and *tri*- (BALBIANO), 1890, A., 797.
- 4-Bromo-1-phenylpyrazole-3:5-dicarboxylic acid** (BALBIANO), 1890, A., 1165.
- diBromo-2-phenylpyridinedicarboxylic acid** and its salts (SKRAUP and COBENZL), 1883, A., 1014.
- triBromophenylsalicylic acid** (ARBENZ), 1890, A., 893.
- p-Bromophenylsuccinamic acid** (HOOGEWERFF and VAN DORP), 1891, A., 196.
- p-Bromophenylsuccinamide** (HOOGEWERFF and VAN DORP), 1891, A., 196.
- diBromophenylsulphonamic acid**, barium salt of (TRAUBE), 1891, A., 569.
- Bromophenyluramidopropionic acids**, *mono*-, *di*- and *tri*- (HOOGEWERFF and VAN DORP), 1891, A., 198.
- γ-Bromophenylvaleric acid** (FITTIG and STERN), 1892, A., 988.
- Bromophenylisovaleric acid** (FITTIG and LIEBMANN), 1890, A., 776.
- Bromophenylvalerolactone** (FITTIG and STERN), 1892, A., 987.
- triBromophloroglucinol** (BENEDIKT and HAZURA), 1885, A., 554; (HERZIG), 1886, A., 232.
- action of potassium iodide on (BENEDIKT and v. SCHMIDT), 1883, A., 1119.
- acetate (ZINCKE and KEGEL), 1890, A., 1109.
- hexaBromophloroglucinol dibromide** (HAZURA and BENEDIKT), 1886, A., 52.
- Bromophthalic acids and anhydride**. See Phthalic acid and anhydride.
- Bromophthalide** (RACINE), 1886, A., 549.
- diBromophthalide** (GUARESCHI), 1884, A., 842.
- diBromo-o-phthalimide** (LE BLANC), 1889, A., 257.
- Bromopiperonal**, derivatives of (OELKER), 1891, A., 1474.
- Bromopiperonaldoxime** (OELKER), 1891, A., 1475.
- Bromopiperonylacrylic acids**, *tri*- and *tetra*- (PERKIN), 1891, T., 160, 163; P., 27.
- triBromopiperonylethylene** (PERKIN), 1891, T., 161; P., 27.
- Bromopiperonylpropionic acid** (WEINSTEIN), 1885, A., 665.
- diBromopiperonylvaleric acid** (*dibromopiperhydropic acid*), and derivatives of (WEINSTEIN), 1885, A., 664.
- Bromopiperonylmethyl methyl ketone** (OELKER), 1891, A., 1475.
- Bromoprehnitene**, action of sulphuric acid on (TÖHL), 1892, A., 968.
- β-Bromopropaldehyde** (LEDERER), 1891, A., 37.
- diBromopropaldehyde** (ETARD), 1892, A., 809.
- triBromopropaldehyde** (NIEMIŁOWICZ), 1890, A., 861.
- 1:2:3-triBromopropane**. See Tribromhydrin.
- tetraBromopropane** (*isoallylene tetrabromide*) (GUSTAVSON and DEMJANOFF), 1889, A., 30.
- Bromopropiolic acid**, action of aromatic amines on (MABERY and KRAUSE), 1890, A., 371.
- Bromopropionic acids**. See Propionic acid.
- Bromopropylamines**. See Propylamine.
- γ-Bromopropylaminenitrobenzamide** (ELFELDT), 1892, A., 214.

- di*Bromopropylisoamylamine and its hydrobromide (PAAL), 1889, A., 118.
- Bromopropylbenzamides,  $\beta$ - and  $\gamma$ - (HIRSCH), 1890, A., 860; (GABRIEL and ELFELDT), 1892, A., 212.
- di*Bromopropyl-*n*- and -*iso*-butylamines (PAAL), 1889, A., 117.
- di*Bromopropylcarbamide and its derivatives (ANDREASCH), 1884, A., 732; (PAAL and HEUPEL), 1892, A., 30; (PAAL), 1892, A., 578.
- Bromopropylcinnamoylamides,  $\beta$ - and  $\gamma$ - (ELFELDT), 1892, A., 215.
- di*Bromopropylene (LESPICHAU), 1892, A., 420.
- $\alpha$ -Bromo-*n*- and -*iso*-propylenes (WISLICHENUS, TEISLER and LANGBEIN), 1889, A., 236.
- Bromopropylencarbamide and its derivatives (ANDREASCH), 1884, A., 733; (PAAL), 1892, A., 578.
- di*Bromopropylic acetates,  $\alpha$ - and  $\alpha\beta$ - (ASCHAN), 1890, A., 1084.
- $\beta$ -Bromopropyl-*m*-nitrobenzamide (ELFELDT), 1892, A., 213.
- $\beta$ -Bromopropylphthalimide (SEITZ), 1891, A., 1472.
- $\gamma$ -Bromopropylphthalimide (GABRIEL and WEINER), 1888, A., 1292.
- Bromopropylthiocarbamide (LAUER), 1890, A., 1090.
- Bromopropylthiophen (RUFFI), 1887, A., 804.
- p*-*di*Bromopropyltoluic acid, oxidation products of (FILETI and BONISCONTRO), 1892, A., 604.
- tri*Bromopropyl-*o*-xylene (UHLHORN), 1890, A., 1249.
- 2-Bromopyridine (v. HOFMANN), 1883, A., 813; (CIAMICIAN and SILBER), 1885, A., 811.
- di*Bromopyridine (KOENIGS and GEIGY), 1884, A., 1195; (BLAU), 1889, A., 1212.
- Bromopyridine-2:3-dicarboxylic acid (CLAUS and COLLISCHONN), 1887, A., 159.
- Bromopyridine-3:4-dicarboxylic acid (EDINGER and BOSSUNG), 1891, A., 580.
- 3:5-*di*Bromopyridine-2:4:6-tricarboxylic acid (PREIFFER), 1887, A., 844.
- tetra*Bromopyrocoll (CIAMICIAN and SILBER), 1884, A., 292.
- Bromopyrocresole oxides (SCHWARZ), 1883, A., 207.
- tri*Bromopyrogallol (WEBSTER), 1884, T., 205, 207.
- Bromopyromucic acids, *mono*- and *di*- (HILL and SANGER), 1884, A., 1305; (CANZONERI and OLIVIERI), 1885, A., 244, 1125; (HILL), 1885, A., 1125.
- Bromopyrotritaric acid (DIETRICH and PAAL), 1887, A., 658.
- di*Bromopyrrolinophthalide (ANDERLINI), 1889, A., 58.
- tri*Bromopyrrol-1-methylglyoxylic acid (DE VARDA), 1890, A., 390.
- di*Bromopyruvic acid, action of hydroxylamine on (SÖDERBAUM), 1892, A., 815.
- compounds of, with hydrazines (NASTVOGEL), 1889, A., 237.
- di*Bromo-pyvruramide and -pyvureide (FISCHER), 1887, A., 918.
- tri*Bromopyvurine (FISCHER), 1887, A., 918.
- Bromoquinol, dimethyl ether of (NÖLTING and WERNER), 1891, A., 209.
- m*-*di*Bromoquinol (LING), 1892, T., 562; P., 105.
- di*Bromoquinoldicarboxylic acid (BÖNIGER), 1888, A., 954.
- di*Bromoquinoldisulphonic acid (GRAEBE and WELTNER), 1891, A., 1029.
- 1-Bromoquinoline-4-carboxylic acid (LELLMANN and ALT), 1887, A., 502.
- Bromoquinoline. See Quinoline.
- Bromoquinolinesulphonic acid. See Quinolinesulphonic acid.
- Bromoquinolinesulphonic bromide (CLAUS and POSSELT), 1890, A., 522.
- Bromoquinolinic acid (SRPEK), 1890, A., 177.
- m*-*di*Bromoquinone (HEINICHEN), 1890, A., 165; (LING), 1892, T., 561; P., 105.
- tetra*Bromoquinone (*bromanil*) (LING), 1887, T., 148; (GRAEBE and WELTNER), 1891, A., 1028.
- tetra*Bromo-*o*-quinone (ZINCKE), 1887, A., 808.
- di*Bromoquinone-chlor- and -phenol-imides (MÖHLAU), 1884, A., 594.
- di*Bromorcicol, diethyl ether of (HERZIG and ZEISEL), 1890, A., 1405.
- Brom- $\alpha$ -orcinololdichroin (BRUNNER and CHUIT), 1888, A., 1183.
- Bromoresorcinols, *mono*- and *di*- (ZEHENTER), 1887, A., 924.
- Bromorosindone (FISCHER and HEPP), 1891, A., 1045.
- di*Bromosalicylamide (SPILKER), 1890, A., 141.
- Bromosalicylic acids, substituted (PERATONER), 1887, A., 486.
- di*Bromosalicylic acid, constitution of (PERATONER), 1887, A., 487.
- di*Bromosalicylthiamide (SPILKER), 1890, A., 142.
- Bromosarcosinemesouric acid (MYLIUS), 1884, A., 1128.



- di*Bromosebacic acid, and its derivatives (CLAUS and STEINKAULER), 1888, A., 133; (AUWERS and BERNHARDI), 1891, A., 1191.
- Bromoshikimolactone (EIJKMAN), 1891, A., 920.
- Bromostannic acid (PREIS and RAYMAN), 1883, A., 425; (SEUBERT and SCHÜRMANN), 1887, A., 554.
- Bromostearic acid (PIOTROWSKI), 1890, A., 1396.
- α*-Bromostearic acid (HELL and SADOMSKY), 1891, A., 1336.
- Bromostyrychnine (SHENSTONE), 1885, T., 140, 141; P., 5; (BECKURTS), 1885, A., 675, 911; (LOEBISCH and SCHOOP), 1886, A., 268. crystallography of (MIERS), 1885, T., 144; P., 5. action of nitric acid on (SHENSTONE), 1885, T., 141; P., 5. methhydroxide and methiodide (BECKURTS), 1890, A., 1329. physiological action of (BRUNTON), 1885, T., 143; P., 5.
- di*Bromostyrychnine (SHENSTONE), 1885, T., 141; P., 5; (BECKURTS), 1885, A., 675, 911.
- tri*Bromostyrychnine (BECKURTS), 1885, A., 675, 911.
- p*-Bromostyrene *di*bromide (SCHRAMM), 1891, A., 898. glycol (SCHRAMM), 1891, A., 898.
- di*Bromostyrene, action of bromine-vapour on (KINNICUTT and PALMER), 1884, A., 603.
- di*Bromosuccinanil (ANSCHÜTZ and WIRTZ), 1887, A., 934.
- Bromosuccinic acids. See Succinic acid.
- Bromosuccinimide (KUSSEROW), 1889, A., 1064.
- o*-Bromo-*m*-sulphobenzoic acid (FISCHER), 1892, A., 333.
- δ*-Bromo-*β*-sulphopyromucic acid (HILL and PALMER), 1889, A., 386.
- 2-Bromoterephthalic acid (SCHULTZ), 1885, A., 1054; (FILETI), 1887, A., 52.
- di*Bromotetracetylbrazelein (SCHALL and DRALLE), 1890, A., 997.
- Bromotetrahydrodiphenylic *di*bromide (BAMBERGER and LODTER), 1888, A., 604.
- tri*Bromotetraketohexamethylene (LANDOLT), 1892, A., 836.
- tetra*Bromotetraketohexamethylene (NEF), 1890, A., 1272.
- hexa*Bromotetramethylene (SABANÉEFF), 1889, A., 1128.
- Bromotetramethylenecarboxylic acid (PERKIN and SINCLAIR), 1891, P., 191; 1892, T., 41.
- Bromo-*α*-tetraresorcinoldichroin ether (BRUNNER and CHUIT), 1888, A., 1182.
- Bromotetraphylphloroglucinols (HERZIG and ZEISEL), 1890, A., 243.
- Bromotetric acid (MOSCHELES and CORNELIUS), 1888, A., 1272.
- μ*-Bromothiazole (SCHATZMANN), 1891, A., 745.
- Bromothiophen (SCHLEICHER), 1886, A., 227.
- di*Bromothiophen, direct preparation of, from coal-tar benzene (MEYER and STADLER), 1885, A., 971.
- tri*Bromothiophen, and its sulphonic acid and anhydride (ROSENBERG), 1885, A., 1051.
- tetra*Bromothiophen, oxidation of (CIAMICIAN and ANGELI), 1892, A., 302.
- Bromothiophen-3-carboxylic acid (GATTERMANN and RÖMER), 1886, A., 537.
- Bromothiophen-2:3-dicarboxylic acid (GERLACH), 1892, A., 831.
- Bromothiotolen. See Bromomethylthiophen.
- 2-Bromothymol (CLAUS and KRAUSE), 1891, A., 899, 900.
- 6-Bromothymol, derivatives of (MAZZARA), 1890, A., 366.
- o*-Bromothymol, ethyl ether of (MAZZARA and VIGHI), 1890, A., 883.
- 6-Bromothymol methyl ether (MAZZARA), 1890, A., 366.
- Bromothymol-*o*- and *p*-sulphonic acids, *o*- and *p*- (CLAUS and KRAUSE), 1891, A., 899.
- β*-Bromothymoquinol (MAZZARA and DISCALZO), 1886, A., 1020; (SCHNITER), 1887, A., 720.
- 2-Bromothymoquinone (MAZZARA), 1890, A., 753; (CLAUS and KRAUSE), 1891, A., 899.
- 5-Bromothymoquinones (SCHNITER), 1887, A., 720; (MAZZARA), 1890, A., 753.
- Bromothymoquinones, 2- and 5- (KEHRMANN), 1890, A., 367.
- Bromotoluene. See Toluene.
- Bromotoluenesulphonic acids. See Toluenesulphonic acids.
- Bromotoluic acid. See Toluic acid.
- m*-Bromo-*o*-toluidine (ALT), 1889, A., 1214.
- p*-Bromo-*m*-toluidine (CLAUS), 1892, A., 1201.
- 2:6-*di*Bromo-*p*-toluidine (CLAUS and HERBABNY), 1892, A., 175.
- m*-Bromo-*o*-toluidine-*m*-sulphonic acid (WYNNE), 1892, T., 1037; P., 155.
- Bromo-*o*-toluonitrile (NOURRISSON), 1887, A., 668.

- 4:6-*di*Bromo-*o*-toluonitrile (CLAUS and BECK), 1892, A., 1208.
- 2:6-*di*Bromo-*p*-toluonitrile (CLAUS and HERBANY), 1892, A., 175.
- 3:5-*di*Bromo-*p*-toluonitrile (CLAUS and SEIBERT), 1892, A., 176.
- Bromotoluphenanthrazine (HARTMANN), 1890, A., 976.
- 3-Bromotoluquinone (CLAUS and JACKSON), 1889, A., 128.
- 4-Bromotoluquinone (SCHNITER), 1887, A., 1036.
- Bromotoluquinones, *di*- and *tri*- (CANZONERI and SPICA), 1883, A., 330.
- tri*Bromotoluquinone, action of potassium hydroxide on (SPICA and MAGNANIMI), 1884, A., 175.
- Bromotolyl methyl ketone, *o*- and *m*- (CLAUS), 1891, A., 911.
- p*-Bromo-*m*-tolyl methyl ketone (SCHÖPFF), 1892, A., 338; (CLAUS), 1892, A., 1200.
- p*-Bromo-*m*-tolyl methyl ketoxime (CLAUS), 1892, A., 1201.
- di*Bromo-*o*- and -*p*-tolyl- $\alpha$ -amidopropionitrile (STEPHAN), 1887, A., 143.
- $\beta$ -*di*Bromotolylbenzoic acid (CARNELLEY and THOMSON), 1886, P., 258; 1887, T., 90.
- 5-Bromo-3:4-tolylenediamine (BISTRZYCKI), 1890, A., 970.
- Bromotolylencarbamide (HARTMANN), 1890, A., 975.
- di*Bromo-*p*-tolyllic benzoate (SCHALL and DRALLE), 1885, A., 146.
- di*Bromotricarballylic acid (GUINOCHE), 1890, A., 594.
- di*Bromotriethylgallic acid (SCHIFFER), 1892, A., 715.
- Bromotrihydroxybenzophenone (GRAEBE and EICHENGRÜN), 1892, A., 1225.
- hexa*Bromotriketohexamethylene (ZINCKE and KEGEL), 1890, A., 1109.
- di*Bromotriketohydronaphthalene hydrate (ZINCKE and GERLAND), 1888, A., 291.
- di*Bromotriketopentamethylenehydrate (LANDOLT), 1892, A., 836.
- tri*Bromotriketopentamethylene (HANTZSCH), 1888, A., 1191, 1192; (LANDOLT), 1892, A., 836.
- Bromotrimethylcarbinol (*bromo-tert.-butyl alcohol*) (GUARESCHI and GARZINO), 1888, A., 437; (GARZINO), 1889, A., 951.
- Bromotrimethylenedisulphone sulphides, *di*- and *hexa*- (CAMPS), 1892, A., 593.
- hexa*Bromotrimethylenetrisulphone (CAMPS), 1892, A., 592.
- Bromotrimethylethylammonium salts, *di*- and *tri*- (BODE), 1892, A., 806.
- $\alpha$ -Bromotrimethylglutaric anhydride (AUWERS and MEYER), 1890, A., 480.
- di*Bromo-2:4:6-trimethylpyridine (PFEIFFER), 1887, A., 844.
- Bromotrimethylvinylammonium salts (BODE), 1892, A., 807.
- tri*Bromotriphenylfurfuran (JAPP and KLINGEMANN), 1890, T., 713.
- Bromotriphenylmethane, action of, on ethyl sodomalonate (HENDERSON), 1887, T., 224.
- reactions of (ELBS), 1884, A., 1030.
- Bromotriphenylmethylpyrrolone, crystallography of (TUTTON), 1890, T., 728.
- tri*Bromotrithienyl (RENARD), 1891, A., 428.
- tri*Bromotritolylbenzene (CLAUS), 1890, A., 770.
- Bromumbelliferones, *mono*- and *di*-, ethyl and methyl ethers of (WILL and BECK), 1886, A., 881, 882.
- Bromoundecylenic acid (BRUNNER), 1886, A., 1011.
- Bromouracilcarboxylic acids (BEHREND), 1887, A., 920.
- di*Bromovaleraldehyde (LIEBEN and ZEISEL), 1886, A., 783.
- Bromovaleric acid, decomposition of (FITTIG and URBAN), 1892, A., 960.
- di*Bromovaleric acid (*dibromomallylacetic acid*) (OTT), 1891, A., 1453.
- Bromovaleric acids,  $\gamma$ -*mono*- and *di*- (FITTIG and FRÄNKEL), 1890, A., 585.
- $\alpha$ -Bromo*iso*valeric acid (VOLHARD), 1888, A., 129; (SCHLEICHER), 1892, A., 427.
- Bromovalerolactone (FITTIG and URBAN), 1892, A., 960.
- di*Bromovalerolactone (WOLFF), 1885, A., 1124.
- Bromovanadinites (DITTE), 1883, A., 783.
- tri*Bromovinylbenzoic acid (ROSER and HASELHOFF), 1888, A., 1304.
- Bromo-*p*-vinylphenol *di*bromide (EIGEL), 1887, A., 1110.
- Bromowagnerites (DITTE), 1883, A., 648.
- Bromoxanthine (FISCHER and REESE), 1884, A., 467.
- di*Bromoxanthone (*dibromodiphenylene ketone oxide*) (PERKIN), 1883, T., 194.
- tri*Bromoxanthone (ARBENZ), 1890, A., 893.
- Bromoxybenzene derivatives (BENEDIKT), 1883, A., 984.

- Bromoxybromocomenic acid** (MENDEL), 1883, A., 657.
- Bromoxylene.** See Xylene.
- Bromo-*p*-xylenesulphonamide** (JACOBSEN), 1885, A., 144.
- di*Bromo-*p*-xylenesulphonamide** (MOODY and NICHOLSON), 1890, T., 977.
- Bromoxylenesulphonic acids.** See Xylenesulphonic acids.
- di*Bromo-*p*-xylenesulphonic chloride** (MOODY and NICHOLSON), 1890, T., 977.
- tri*Bromo-*o*-xyleneol** (TÖHL), 1886, A., 57.
- Bromo-*p*-xyleneol** (ADAM), 1884, A., 1329.
- 4,5-*di*-Bromo-*o*-xylidine** (TÖHL), 1886, A., 57.
- 5-*i*-*di*Bromo-*p*-xylidine** (NÖLTING and KOHN), 1886, A., 356.
- Bromo-*p*-xylyl methyl ketone** (SCHÖPFF), 1892, A., 338.
- Bromoxy-2'-methylquinoline** (KNORR and ANTRICK), 1885, A., 274.
- tri*Bromoxy-4'-methylquinoline** (COMSTOCK and KOENIGS), 1884, A., 1383.
- Bromoxynaphthaquinonesulphonic acid**, potassium salt of (ARMSTRONG and STREETFELD), 1886, P., 232.
- 2'-Bromoxyquinoline.** See Bromocarbo-styryl.
- Bromoxytribromophenol** (WERNER), 1885, A., 658.
- Bronze**, process for phosphorising (WHITING), 1884, A., 936.
- Weiller's silicon- (MÜLLER), 1885, A., 308.
- implements used by the miners of Peru (BOUSSINGAULT), 1883, A., 691.
- statues, cause of the blackening of the patina of (HASSACK), 1885, A., 1270.
- Bronze-coloured surface on iron**, process for producing (MAYER), 1884, A., 127.
- Bronzes**, Indian, and their patina, some analyses of (ARCHE and HASSACK), 1885, A., 100.
- Japanese, analyses of (MARQUARD), 1885, A., 204.
- Bronzite** (WEISBACH), 1883, A., 432.
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- Brookite** (KUNZ), 1892, A., 1055.
- from Beura, Ossola (STRÜVER), 1891, A., 527.
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- Broom** (*Genista pilosa*), analysis of, and of its ash (PETERMANN), 1884, A., 207.
- Brucine.** See under Alkaloids.
- Brucite** (WEISBACH), 1883, A., 1061.
- from Cogne, Val d' Aosta (FRIEDEL), 1883, A., 1061; 1884, A., 162.
- from the Tyrol (v. FOULLON), 1890, A., 339.
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- Brücke's acid** (*oxyprotosulphonic acid*) (MALY), 1885, A., 824.
- Brushwood**, food value of (STUTZER), 1892, A., 1511.
- Bryonin**, detection of (JOHANNSON), 1885, A., 606.
- Buchu leaves** (SHIMOYAMA), 1888, A., 1205.
- Building stones**, decay of (WALLACE), 1883, A., 1036.
- Bulbocapnine** (FREUND and JOSEPHI), 1892, A., 1366.
- Bunsen-battery.** See Electrochemistry.
- Bunte's salt** (*sodium ethylthiosulphate*), preparation and properties of (OTTO and RÖSSING), 1892, A., 799.
- Buraitite.** See Aurichalcite.
- Burette** for solutions which are easily reduced, and which attack india-rubber (GAWALOWSKI), 1885, A., 835.
- float for opaque liquids (REY), 1891, A., 1288.
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- Burettes**, manufacture and correction of (OSTWALD), 1883, A., 619.
- improvements in (REID), 1892, A., 1027.
- Burner**, Bunsen, a modified (SHENSTONE), 1885, T., 378; P., 51.
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- Burners**, new (GRÖGER), 1890, A., 106.
- "Bumping"** in distillation, method of avoiding (REISMANN), 1888, A., 547; (MARKOWNIKOFF), 1888, A., 1155.
- iso*Butaconic acid** (FITTIG and KRAENCKER), 1890, A., 875.
- Butaldehyde** (JUSLIN), 1885, A., 138.
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- Butaldehyde**,  $\alpha\gamma$ -dichloro- $\alpha\beta$ -*di*bromo- (NATTERER), 1883, A., 965.
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- iso*Butaldehyde, preparation of, free from acetone (FOSSEK), 1884, A., 37.  
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*Butane*, absorption coefficient of, in water (HENRICH), 1892, A., 1043.  
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*iso*Butane, tribromo- (NORTON and WILLIAMS), 1887, A., 712.  
*tert.-Butane*, nitro- (BEWAD), 1891, A., 653.  
*Butanecarboxylic acid*. See Butyric acid.  
*Butanedicarboxylic acid*. See Adipic acid, Dimethylsuccinic acid, Ethylsuccinic acid, Methylsuccinic acid, Methylglutaric acids, Propylmalonic acid, *iso*Propylmalonic acid.  
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*iso*Butanedisulphonic acid, barium salt of (GUARESCHI and GARZINO), 1888, A., 436.  
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*p*-Butenylanisols, molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.  
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*iso*Butenyltolylene-*o*-diamine (HINSBERG), 1887, A., 817.  
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*Butinenes* (NORTON and NOYES), 1889, A., 361.  
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- Butinenecarboxylic acid**, *pentachloro-* (ZINCKE and KÜSTER), 1888, A., 1278.
- o*-**isoButoxybenzaldehyde**, and *trithio-* (BAUMANN and FROMM), 1891, A., 1051.
- p*-**isoButoxydiphenylamine** (PHILIP and CALM), 1885, A., 155.
- iso***Butoxyhydrocotarnine methiodide** (ROSER), 1890, A., 532.
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- "**Butter beans**," a new variety of fatty seeds (v. HÖHNEL and WOLFBauer), 1884, A., 1209.
- Butterflies**, yellow pigment in (HOPKINS), 1889, P., 117.
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- tert*-**Butyl alcohol** (*trimethylcarbinol*), bromo- (GUARESCHI and GARZINO), 1889, A., 951.
- $\beta$ -**Butyl glycol** and its derivatives (WURTZ), 1884, A., 169.
- oxybutyrate, diacetyl derivative of (WURTZ), 1884, A., 579.
- tert*-**Butyl mercaptan** (DOBBIN), 1890, T., 639; P., 105.
- iso***Butylacetamide** (*isohexamide*) (JACOBY), 1886, A., 785; (TIEMANN), 1891, A., 538.
- iso***Butylacetanilide** (PICTET), 1890, A., 758.
- iso***Butylacetic acid** (*isohexzoic acid*) (KASSNER), 1888, A., 673.
- iso***Butylacetoacetamide** (PETERS), 1890, A., 1097.
- iso***Butyl acetone**, nitroso- (TREADWELL and WESTENBERGER), 1883, A., 572.
- Butylacetylenecarboxylic acid** (*heptinoic acid*) (FAWORSKY), 1888, A., 1169.
- Butylacridine**, and its derivatives (BERNTHSEN and TRAUBE), 1884, A., 1183.
- iso***Butylallylamine** (PAAL and HEUPEL), 1892, A., 31.
- s*-*iso***Butylallylthiocarbamide** (HECHT), 1892, A., 702.
- n*-**Butylamine**,  $\delta$ -chloro- (GABRIEL), 1892, A., 131.
- n*-**Butylamines** (BERG), 1891, A., 662.
- iso***Butylamine** (MALBOT), 1891, A., 36.
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- magnetic rotatory power of (PERKIN), 1889, T., 694, 730, 735.
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- iso***Butylamine**, chloro- and *dichloro-* (BERG), 1892, A., 1172.
- tert*-**Butylamine** (BEWAD), 1891, A., 654.
- iso***Butylisoamylglyoxaline** (*oxalisoamylisoamylglyline*) (RADZISZEWSKI and SZUL), 1884, A., 986.
- iso***Butylaniline** (PICTET), 1890, A., 758.
- dinitro-* (BARR), 1888, A., 823.
- p*-nitroso- (WACKER), 1888, A., 466.
- Butylbenzene** (*phenylbutane*), action of aluminium chloride on (SCHRAMM), 1889, A., 127; (HEISE and TÖHL), 1892, A., 1309.
- p*-bromo-, and *p*- $\beta$ -*tribromo-* (SCHRAMM), 1891, A., 899.
- iso***Butylbenzene** [b.p. 165°—170°] (SEŃKOWSKI), 1892, A., 44.
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*d*-**Mannitol**, occurrence of, in the pine-apple (LINET), 1884, A., 629.

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*d*-**Mannitol**, fermentation of, with Friedländer's *Pneumococcus* (FRANKLAND, STANLEY and FREW), 1891, T., 256.

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*l*-**Mannitol** (FISCHER), 1890, A., 467.

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*d*-**Mannoctose** and its derivatives (FISCHER), 1890, A., 598; (FISCHER and PASSMORE), 1890, A., 1232.

*d*-**Mannoheptitol**. See *Perseitol*.

*d*-**Mannoheptose** (FISCHER), 1890, A., 598; (FISCHER and PASSMORE), 1890, A., 1230.

*d*-**Mannonose** (FISCHER and PASSMORE), 1890, A., 1233.

*d*-**Mannose** (*seminose*) and its derivatives (FISCHER and HIRSCHBERGER), 1888, A., 934; 1889, A., 480, 687; 1890, A., 224; (REISS), 1889, A., 687; 1891, A., 356; (STAHEL), 1890, A., 1260; (JACOBI), 1891, A., 665.

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*d*-**Mannosediphenylhydrazone** (STAHEL), 1890, A., 1260.

*d*-**Mannosehydrazone** (FISCHER and HIRSCHBERGER), 1889, A., 481.

*d*-**Mannoseoxime** (JACOBI), 1891, A., 665.

*i*-**Mannose** and its derivatives (FISCHER), 1890, A., 468.

*l*-**Mannose** and its derivatives (FISCHER), 1890, A., 466.

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**Pentose carbohydrates**, digestibility of (STONE), 1892, A., 645.

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- iso***Carbostyrylcarboxylic acid** (BAMBERGER and KITSCHULT), 1892, A., 882; (ZINCKE), 1892, A., 970.
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- Carbothiamidocyanobenzoyl** (GRIESS), 1885, A., 1226.
- Carbotrithiohexabromide**, and formation of a new colouring matter by the action of heat on (HELL and URECH), 1883, A., 907.
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- Carbo-*p*-toluidofurfur $\alpha$ synaldoxime** (GOLDSCHMIDT and ZANOLI), 1892, A., 1434.
- Carbo-*o*-toluidothiophens $\alpha$ synaldoxime** (GOLDSCHMIDT and ZANOLI), 1892, A., 1436.
- Carbo-*o*-tolylene-diphenyltetramine and -*di-p*-tolyltetramine** (DAHM and GASIOROWSKI), 1887, A., 247.
- Carbotolylphenylimide** (HUHN), 1886, A., 1035.
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- o*-**Carboxyanilidoacetic acid** (*phenylglycin-*o*-carboxylic acid*) (MAUTHNER and SUIDA), 1889, A., 143.
- p*-**Carboxyanilidoacetic acid** (MAUTHNER and SUIDA), 1891, A., 39.
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- m*-**Carboxybenzylphthalamic acid** (REINGLASS), 1891, A., 1345.
- p*-**Carboxybenzylphthalamic acid** (GÜNTHER), 1890, A., 977.
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- o*-**Carboxycinamic acid**, oxidation of  $\beta$ -naphthol to (EHRlich and BENEDIKT), 1888, A., 1306.

- o-Carboxycinnamic acid**, oxidation of (EHRICH), 1890, A., 54.
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- o-Carboxycinnamylidithiocarbamic acid** (ROTSCCHILD), 1890, A., 1123; 1891, A., 199.
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- Carboxyethyl-o-amidobenzamide** (*ethyl carbamylphenyl carbamate*) (ΔET), 1889, A., 610.
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- Carboxyglutaric acid** (*propanetricarboxylic acid*) (EMERY), 1891, A., 547.
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- α-Carboxynaphthylorthophosphoric pentachloride**, chloro- (WOLFFENSTEIN), 1887, A., 963.
- o-Carboxyphenylacetic acid** (*phenylacetic-o-carboxylic acid*, *homophthalic acid*, *isovutic acid*) (WISLICENUS), 1885, A., 532; 1886, A., 880; (SCHREDER), 1885, A., 798; (LE BLANC), 1889, A., 256.  
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- o-Carboxyphenylglyceric acid**, δ-lactone of (BAMBERGER and KITSCHULT), 1892, A., 857.
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- "*tri*Chloro-*m*-dibromoxybenzene"** (BENEDIKT), 1883, A., 984.
- Chlorobromophenol**. See Phenol.
- Chlorobromophenylic benzoate** (GARZINO), 1890, A., 1108.
- Chlorobromo- $\beta$ -phenylpropionic acid** (ERLENMEYER), 1883, A., 196.
- 4-Chloro-5-bromophthalic acid** (CLAUS and GRONEWEG), 1891, A., 921.
- p*-Chlorobromophthalide** (GUARESCHI and BIGINELLI), 1887, A., 1114.
- Chlorobromopropionic acid**. See Propionic acid.
- di*Chlorobromopyromucic acids** (HILL and JACKSON), 1890, A., 601.
- di*Chlorobromopyruvic acid** (HANTZSCH), 1890, A., 132.
- Chlorobromoquinol**. See Quinol.
- Chlorobromoquinone**. See Quinone.
- Chlorobromotetraphthalic acid** (WILLGERODT and WOLFIEN), 1889, A., 966.
- di*Chlorodibromotetrahydroxydiphenyl** (BENEDIKT), 1883, A., 985.
- di*Chlorodibromotetraketohexamethylene** (NEF), 1890, A., 1271.
- $\alpha$ -Chloro-*p*-bromothymoquinol** (SCHNIETER), 1887, A., 720.
- Chlorobromotoluenes** (WILLGERODT and SALZMANN), 1889, A., 986.
- Chlorobromo-*p*-toluic acid** (WILLGERODT and WOLFIEN), 1889, A., 966.

- 2-Chloro-5-bromo-*p*-toluic acid (CLAUS and DAVIDSEN), 1892, A., 173.
- 4-Chloro-5-bromo-*m*-xylene and 4:5-dichloro-3-bromo-*m*-xylene (CLAUS and GRONEWEG), 1891, A., 921.
- 2:4-diChloro-5:6-di-bromo-*m*-xylene (KOCH), 1890, A., 1248.
- Chlorobromo-*p*-xylenes, and their derivatives (WILLGERODT and WOLFIEN), 1889, A., 965.
- diChlorobrucine (BECKURTS), 1890, A., 1330.
- $\alpha$ -diChlorobutaldehyde (NATTERER), 1883, A., 965.
- triChlorobutaldehyde (NATTERER), 1883, A., 966.  
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- Chloroisobutaldehyde (BROCHET), 1892, A., 1292.
- tetraChloroisobutane (WILLGERODT and DÜRR), 1887, A., 570.
- pentaChlorobutinenecarboxylamide (pentachloropentolamide) (ZINCKE and KÜSTER), 1890, A., 1257.
- pentaChlorobutinenecarboxylic acid (ZINCKE and KÜSTER), 1888, A., 1278.
- Chlorobutyl derivatives, normal and primary (HENRY), 1886, A., 215.
- $\delta$ -Chlorobutylamine (GABRIEL), 1892, A., 131.
- Chloroisobutylamines, *mono*- and *di*- (BERG), 1892, A., 1172.
- p*-Chloroisobutylbenzene (v. DOBRZYCKI), 1888, A., 369.
- Chloroisobutylene (SCHESCHUKOFF), 1884, A., 1276.
- diChloro- $\psi$ -butylenic di-bromide (NEWBURY), 1884, A., 295.
- Chlorobutylglyoxaline (*chloroxalaminine*) (WALLACH), 1883, A., 50.
- triChlorobutyl alcohol, action and fate of, in the animal organism (KÜLZ), 1885, A., 283.
- chloride, tertiary (WILLGERODT and DÜRR), 1887, A., 570.
- oxide, tertiary (WILLGERODT and DÜRR), 1887, A., 570.
- perChlorobutyl alcohol, *perchlorosebacate* (GEHRING), 1887, A., 801.
- $\gamma$ -Chlorobutyramide (HENRY), 1886, A., 216.
- $\alpha$ -diChlorobutyranilide (RÜGHEIMER and SCHRAMM), 1888, A., 502.
- Chlorobutyric acids. See Butyric acids.
- $\gamma$ -Chlorobutyric chloride (HENRY), 1886, A., 216.
- $\alpha\beta$ -diChlorobutyric chloride (ZEISEL), 1886, A., 1007.
- Chlorobutyrimidoether hydrochloride (PINNER), 1884, A., 1292.
- $\gamma$ -Chlorobutyronitrile (HENRY), 1886, A., 215; (GABRIEL), 1890, A., 1221.
- Chlorocaffeine (FISCHER and REESE), 1884, A., 466.
- Chlorocamphor. See Camphor.
- Chlorocamphorsulphonic acids,  $\alpha$ - and  $\beta$ -, salts of (MARSH and COUSINS), 1891, T., 978.
- $\alpha$ -Chlorocamphorsulphonic chloride (MARSH and COUSINS), 1891, T., 978.
- Chlorocamphoryl chloride (MARSH), 1890, A., 995.
- Chlorocarbonylsulphamyl (SCHÖNE), 1885, A., 512.
- p*-Chlorocarbostyryl (*p*-chloro-2'-oxyquinoline) (EINHORN and LAUCH), 1888, A., 501.
- $\beta$ -Chlorocarbostyryl (FRIEDLÄNDER and WEINBERG), 1883, A., 351.
- Chloro- $\psi$ -carbostyryl (EINHORN and LAUCH), 1888, A., 501.
- Chlorocellulose, formation of, electrochemically (GOPPELSROEDER), 1885, A., 208.
- diChlorocinchonine (COMSTOCK and KOENIGS), 1892, A., 1011.
- $\alpha$ -Chlorocinnam-aldehyde and -aldoxime (NAAR), 1891, A., 562.
- Chlorocinnamic acid. See Cinnamic acid.
- Chlorocinnoline (BUSCH and KLETT), 1892, A., 1494.
- triChlorocitrazinimide, compound of with aniline (RUHEMANN), 1888, A., 728.
- Chlorocitryl chloride, constitution of (SKINNER and RUHEMANN), 1889, T., 240.  
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- diChlorocomanic acid (OST), 1885, A., 49.
- Chlorocoumarone (KRAEMER and SPILKER), 1890, A., 496.
- Chlorocresol. See Cresol.
- Chlorocrotonaldehyde. See Crotonaldehyde.
- diChlorocrotonaldoxime (SCHIFF and TARUGI), 1892, A., 34.
- Chlorocrotonic acids. See Crotonic acids.
- Chlorocrotonylcarbamide (PINNER and LIFSCHÜTZ), 1887, A., 1032.
- Chlorocruorine (GRIFFITHS), 1892, A., 1256.
- Chlorocetylbenzene (AHRENS), 1887, A., 133.
- Chloro-*n*-cumene (*chloropropylbenzene*) (ERRERA), 1887, A., 35.
- Chloro- $\psi$ -cumene (WALLACH and HEUSLER), 1888, A., 362.

- o*-Chlorocumylacrylic acid (WIDMAN), 1891, A., 69.
- o*-Chlorocumylpropionic acid (WIDMAN), 1891, A., 69.
- Chlorocyanic acid (BELLMANN), 1884, A., 840.
- Chlorocyanuric iodide (KLASON), 1886, A., 1001.
- Chlorocymene. See Cymene.
- Chlorocymenesulphonic acid (CARRARA), 1890, A., 779.
- 6-Chlorocymene-2-sulphonic acid (ERRERA), 1890, A., 1288.
- tri*Chloro-*m*-isocymene-6-sulphonic acid, and its sodium salt (KELBE), 1883, A., 806.
- Chlorodecane from American petroleum (LEMOINE), 1884, A., 1107.
- Chlorodecyl benzoate (GROSJEAN), 1892, A., 691.
- Chlorodehydrobenzoylacetic acid, preparation and properties of (PERKIN), 1885, T., 292.
- di*Chloroisodehydrocholal (LASSAR-COHN), 1892, A., 741.
- Chlorodehydrocholic acid (LASSAR-COHN), 1892, A., 741.
- Chlorodeoxybenzoin (CURTIUS and LANG), 1892, A., 451.
- Chlorodeoxybenzoin-*o*-carboxylic acids, *α*-*di*- and -*tetra*- (GABRIEL and HENDESS), 1888, A., 145.
- p*-Chlorodesaurin (PETRENKO-KRITSCHENKO), 1892, A., 1227.
- 6-Chloro-2:5-diacetamidoquinol (KEHRMANN and TIESLER), 1890, A., 243.
- 6-Chloro-2:5-diacetamido-4-quinone (KEHRMANN and TIESLER), 1890, A., 243.
- Chlorodiacetylacetone (FEIST), 1892, A., 811.  
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- tetra*Chlorodiacetyl (*tetrachlorodimethyl diketone*), action of ammonia and ethylenediamine on (LEVY and JEDLIČKA), 1888, A., 443; (LEVY), 1890, A., 475.
- Chlorodiacetylquinol (SCHEID), 1884, A., 430.
- Chlorodiamylamine (BERG), 1890, A., 952.  
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- 5-Chloro-3:6-dianilido-2-ethoxy-1:4-quinone (KEHRMANN), 1891, A., 903.
- Chlorodianilidophenylquinoneimide (ANDRESEN), 1884, A., 431.
- di*Chlorodianthranyl (SACHSE), 1888, A., 1201; 1890, A., 638.
- di*Chlorodianthranyl octochloride (SACHSE), 1890, A., 638.
- tetra*Chloro-*m*-diazine (*tetrachloropyrimidine*) (CIAMICIAN and MAGNAGHI), 1886, A., 226.
- Chlorodiaz-. See Diazo- under Azo.
- Chlorodisobutylamine (BERG), 1892, A., 1173.
- Chlorodisobutylene dichloride (MALBOT and GENTIL), 1889, A., 843.
- Chloro-2'3' or 4'-diethoxymethylquinoline (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- Chlorodiethylamine (GATTERMANN), 1886, A., 796.
- Chlorodiethylenediamine cobalt chloride (JÖRGENSEN), 1889, A., 352.
- Chlorodihydromecenic acid (HILSEBEIN), 1885, A., 1203.
- p*-*di*Chlorodihydroterephthalic acid (LEVY and ANDREOCCI), 1888, A., 840, 1091.
- Chloro-3:5-dihydroxybenzoic acids, *di*- and *tri*- (ZINCKE and FUCHS), 1892, A., 1461.
- Chlorodihydroxybutanes, *mono*- and *di*- (ZIKES), 1885, A., 1046.
- 3:2'4'-Chlorodihydroxydihydroquinoline (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1100.
- 6:3:2:5-Chloro-*p*-dihydroxyethoxyquinone (KEHRMANN), 1891, A., 904.
- Chlorodihydroxy-*α*-picolines, *di*- and *tri*- (HOFFMANN), 1889, A., 856.
- 3'-Chloro-2'-4'-dihydroxy-1-methylquinoline (*chlorohydroxy-o-tolucarbostyryl*) (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- 1:1'-*di*Chloro-2:2'-dihydroxynaphthalene and 1:3:3':1'-*tetrachloro*-2:2'-dihydroxynaphthalene (CLAUSIUS), 1890, A., 629.
- di*Chlorodihydroxypentancarboxylic acid (HANTZSCH), 1888, A., 131; 1889, A., 853.
- tri*Chlorodihydroxypentancarboxylic acid (HANTZSCH), 1888, A., 130; 1889, A., 853; (HOFFMANN), 1889, A., 856.
- 2:4-*di*Chloro-1:1'-dihydroxyquinoline (HEBE BRAND), 1889, A., 61.
- Chlorodihydroxyisoquinoline (RÜGHEIMER), 1886, A., 702.
- Chloro-3:2:5-dihydroxyquinone (KEHRMANN and TIESLER), 1890, A., 242; (KEHRMANN), 1890, A., 756.
- di*Chlorodihydroxyquinone. See Chloranilic acid.
- p*-*di*Chloro-*p*-dihydroxyterephthalic acid (HANTZSCH and ZECKENDORF), 1888, A., 278.



- Chloro-2:4-dihydroxy-*m*-xylene** (*chlorodimethylresorcinol*) (WISCHIN), 1891, A., 74.
- tetraChlorodiketodihydropentene** (ZINCKE and RABINOWITSCH), 1891, A., 691.
- heptaChloro-*m*-diketohexamethylene** (ZINCKE and RABINOWITSCH), 1891, A., 690.
- Chlorodiketohexene.** See Diketohexene.
- diChloro- $\alpha$ -diketohydrindene** (ZINCKE), 1888, A., 489.
- Chlorodiketohydronaphthalene.** See Diketohydronaphthalene.
- Chlorodiketopentamethylene** (HANTZSCH), 1888, A., 132.
- Chlorodiketopentamethylenecarboxylic acid** (HANTZSCH), 1888, A., 132.
- Chlorodiketopentamethylenehydroxycarboxylic acids, *mono*- and *di*-** (HANTZSCH), 1890, A., 131, 132.
- triChlorodiketopentamethylenehydroxycarboxylic acid** (HANTZSCH), 1888, A., 1190; (LANDOLT), 1892, A., 835.
- tetraChlorodiketopentamethylenehydroxycarboxylic acid** (LANDOLT), 1892, A., 836.
- monoChloro- and  $\epsilon$ -dichloro- $\alpha$ - $\delta$ -diketopentanecarboxylic acids** (HANTZSCH), 1889, A., 854.
- hexaChlorodiketotetrahydrobenzene** (ZINCKE and KÜSTER), 1888, A., 1277.
- triChlorodimethylacetal** (MAGNANIMI), 1887, A., 28.
- triChlorodimethylamidophenylquinone-imide** (MÖHLAU), 1884, A., 595.
- Chlorodimethylanilines, *o*- and *p*-, and derivatives** (HEIDLBERG), 1887, A., 474.
- 4-Chloro-2:6-dimethylpyridine** (4-*chloro-2:6-lutidine*) and its derivatives (CONRAD and EPSTEIN), 1887, A., 501.
- diChlorodimethylquinol** (CLAUS and RUNSCHKE), 1890, A., 1247.
- tetraChlorodimethylquinoxaline** (LEVY, WITTE and CURCHOD), 1890, A., 232.
- Chlorodimethylresorcinol** (*chloro-2:4-dihydroxy-*m*-xylene*) (WISCHIN), 1891, A., 74.
- s*- $\alpha$ -diChlorodimethylsuccinamic acid** (OTTO and HOLST), 1890, A., 958.
- $\alpha$ -diChloro-*s*-dimethylsuccinic anhydride** (OTTO and HOLST), 1890, A., 957.
- action of phenylhydrazine on (OTTO and HOLST), 1890, A., 1327.
- tetraChlorodimethyltartar-amide and -imide** (LEVY, WITTE and CURCHOD), 1890, A., 233.
- perChlorodioxydiphenylene** (HUGOUNENQ), 1889, A., 1150.
- perChlorodiphenyl** (MERZ and WEITH), 1884, A., 589.
- p*-Chlorodiphenylamine** (IKUTA), 1888, A., 467.
- di*-*p*-Chlorodiphenylcarbamide** (HEWITT), 1891, T., 212.
- Chlorodiphenylcarbamides, *m*- and *p*-** (GOLDSCHMIDT and BARDACH), 1892, A., 979.
- di*Chlorodiphenyldi-*m*-carboxylic acid** (STOLLE), 1888, A., 700.
- o*-diChlorodiphenylsulphone** (FRIEDEL and CRAFTS), 1887, A., 1101.
- tetraChlorodiphthalyl** (GRAEBE and GUYE), 1886, A., 882.
- di*Chloroditolyl diacetylenedi-*amide*** (BISCHOFF and NASTVOGEL), 1890, A., 1161.
- di*Chloroditolyl** (STOLLE), 1888, A., 699.
- Chlorodurene.** See Durene.
- Chlorodurenesulphonic acid** (TÖHL), 1892, A., 1465.
- $\alpha$ -diChlorofluorene** (HODGKINSON and MATTHEWS), 1883, T., 170.
- triChlorofluorene** (HOLM), 1883, A., 922.
- $\beta$ -Chlorofluorescein** (GRAEBE and RÉE), 1886, T., 530.
- di*Chlorofluorescein** (LE ROYER), 1887, A., 832.
- tetraChlorofluorescein** (GRAEBE), 1887, A., 833.
- Chloroform** (*trichloromethane*), preparation of (ANON.), 1885, A., 46; (MICHAELIS and MAYER), 1886, A., 999.
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- action of potash on a mixture of acetone and (ENGEL), 1887, A., 569.
- action of sodium benzenesulphinate on (R. and W. OTTO), 1888, A., 841.
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- Chloroform** (*trichloromethane*), action of alkali sulphides on (DE MONT), 1892, A., 421.  
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- Chloroformamide** (GATTERMANN and SCHMIDT), 1887, A., 569.  
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- Chloroformberberine** (GAZE), 1890, A., 1012; 1891, A., 322.
- Chlorofulminuric acid** (EHRENBERG), 1885, A., 1192.
- Chlorofumaric acid**. See **Fumaric acid**.
- Chlorofumaric chloride** (PERKIN), 1888, T., 696.  
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- Chlorofumarimides**, *mono-* and *di-* (CIAMICIAN and SILBER), 1884, A., 293.
- Chlorofurfurylacraldehyde** and its derivatives (MEHNE), 1888, A., 453.
- $\gamma$ -Chlorofurfurylacrylic acid** (MEHNE), 1888, A., 453.
- $\gamma$ -Chlorofurfurylpentonic acid** (MEHNE), 1888, A., 453.
- tetraChlorogallein** (GRAEBE), 1887, A., 833.
- $\beta$ -Chloroglutaconic acid** (BURTON and V. PECHMANN), 1887, A., 467.
- tetraChloroglutaconic acid** (ZINCKE and FUCHS), 1892, A., 1463.
- pentaChloroglutaric acid** (ZINCKE), 1892, A., 1186.
- 3:5-diChloroglutazine** (*dichloro-4-amido-2:6-dihydroxypyridine*) (STOKES and V. PECHMANN), 1887, A., 156.
- diChloroglyceryl acetate** (SEELIG), 1892, A., 289.
- Chloroglyceryl diacetate** (SEELIG), 1892, A., 289.
- Chloro-amphi- and -anti-glyoximes** (HANTZSCH), 1892, A., 693.
- Chloroheptanesulphonic acid derivatives** (SPRING and WINSSINGER), 1888, A., 939.
- Chloroheptonic acid derivatives** (SPRING and WINSSINGER), 1888, A., 939.
- triChlorohexahydrophloroglucinol** (HAZURA and BENEDIKT), 1886, A., 52.
- hexaChlorohexamethylbenzene** (COLSON), 1886, A., 1016.
- p-Chlorohydrazobenzene** (HEUMANN and MENTHA), 1886, A., 875.
- p-Chlorohydrazobenzene-o-carboxylic acid** (PAAL), 1892, A., 68.
- m-Chlorohydrindone** (V. MILLER and ROHDE), 1890, A., 1139.
- p-Chlorohydrindone** (MIERSCH), 1892, A., 1222.
- Chlorohydrocinnamic acid**. See **Chloro- $\beta$ -phenylpropionic acid**.
- Chlorohydrolapachol** (HOOKER), 1892, T., 631.
- Chlorohydroxyamidohydroxyquinone-oxime** (KEHRMANN and TIESLER), 1890, A., 493.
- diChloro-p-hydroxybenzoic acid** (CLAUS and RIEMANN), 1883, A., 1112; (ZINCKE and WALBAUM), 1891, A., 710.
- Chloro-m-hydroxybenzoic acids**, *tri-* and *tetra-* (ZINCKE and WALBAUM), 1891, A., 709.
- tetraChlorohydroxyisobutyramide**, formation of (LEVY, WITTE and CURCHOD), 1890, A., 234.
- Chlorohydroxybutyric acids**. See **Hydroxybutyric acids**.
- $\alpha$ -Chlorohydroxybutyro-o-toluide-o-tolylcarbamine** (RÜGHEIMER and SCHRAMM), 1888, A., 503.
- Chlorohydroxydiethylallylamine** (REBOUL), 1884, A., 578.

- di*Chlorohydroxydiketohydrindocarb-  
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- 2:4-*di*Chloro-1-hydroxy-1'-ethoxy-  
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- tri*Chlorohydroxyethylidene-2'-methyl-  
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- 2'-Chloro-4'-hydroxy-3'-ethylquinoline  
(RÜGHEIMER and SCHRAMM), 1887,  
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- Chlorohydroxyethyltrimethyl-  
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- tetra*Chloro-α-hydroxyhydrindene and  
*di*chlorohydroxyketohydrindene  
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- di*Chlorohydroxyketohydrindenecarb-  
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- Chlorohydroxyketoindene (ZINCKE and  
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- 3'-Chlorohydroxy-1-methylcarbostyryl  
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- 2'-Chloro-4'-hydroxy-1-methyl-3'-  
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- di*Chlorohydroxymethylpurin (FIS-  
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- Chloro-δ-hydroxy-β-methylquinazoline  
(DEHOFF), 1890, A., 802.
- 2':3'-*di*Chloro-4'-hydroxy-1-methyl-  
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- Chlorohydroxymethylisoquinoline  
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- tri*Chlorohydroxymethylsuccinic acid,  
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- Chlorohydroxynaphthaquinoneimide  
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- Chloro-α-hydroxynaphthaquinonesulph-  
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- Chlorohydroxy-α-naphthoic acid (EK-  
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- αβ-*di*Chloro-β-hydroxy-α-naphthyl-  
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- Chlorohydroxydipropionic acid  
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- γγ-*hexa*Chloro-α-hydroxypentene cyan-  
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- Chlorohydroxyphenindulone (KEHR-  
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- ββ-*di*Chloro-α-hydroxyphenylpyridone  
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- Chlorohydroxyphenylthiazole (SCHATZ-  
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- β-*tri*Chloro-α-hydroxypropenyl-amid-  
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- ω-*tri*Chloro-β-hydroxypropylacridine  
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- tri*Chlorohydroxypropylamine (FAU-  
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- ω-*tri*Chlorohydroxypropylpyrrolone  
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- tri*Chloro-α-hydroxypropylquinoline  
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- di*Chlorohydroxypyridine (KOENIGS and  
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- Chlorohydroxyquinoline. See Hydroxy-  
quinoline.
- Chlorohydroxyisoquinolines, *mono*- and  
*di*- (RÜGHEIMER), 1886, A., 702.
- 2-Chloro-3-hydroxyquinolinequinone  
and its anilide (ZINCKE) 1891, A.,  
1251.
- p*-Chlorohydroxyquinone (STIEGLITZ),  
1891, A., 456.
- Chlorohydroxy-*o*-tolucarboystyryl. See  
3'-Chloro-2':4'-dihydroxy-1-methyl-  
quinoline.
- di*Chlorohydroxytrimethyluracil (HA-  
GEN), 1888, A., 582.
- Chlorohydroxyvaleric acids (MELI-  
KOFF and PETRENKO-KRITSCHENKO),  
1890, A., 736, 862; (MELIKOFF),  
1888, A., 1177.
- Chloroketodihydroquinolines, *tri*- and  
*tetra*- (ZINCKE), 1891, A., 1250.
- tetra*Chloroketohydrindene (ZINCKE and  
FRÖHLICH), 1887, A., 955.
- Chloroketohydronaphthalene. See Keto-  
hydronaphthalene.



- tri*Chloro- $\beta$ -ketohydronaphthalene- $\alpha$ -oxime (ZINCKE and SCHMUNK), 1890, A., 1148.
- $\gamma_1$ -Chloro- $\alpha_2$ -ketojuloline (REISSERT), 1892, A., 884.
- Chloroketonaphthalene. See Ketonaphthalene.
- hexa*Chloroketopentene [m.p. 31°] (ZINCKE and KÜSTER), 1888, A., 1278.
- $\gamma\gamma$ -*hexa*Chloroketopentene [m.p. 92°] (ZINCKE and KÜSTER), 1889, A., 599; 1890, A., 754, 1255.
- penta*Chloro- $\alpha$ -ketophenyl- $\gamma$ -piperidone (ZINCKE and FUCHS), 1892, A., 449.
- tri*Chloroketoquinoline (HEBE BRAND), 1889, A., 61.
- penta*Chloroketoquinoline, derivatives of (HEBE BRAND), 1889, A., 62.
- Chloroketotetrahydrobenzoic acids, *penta*- and *hexa*- (ZINCKE and WALBAUM), 1891, A., 708, 710.
- tetra*Chloroketotetrahydroquinoline hydrate (ZINCKE), 1891, A., 1252.
- tetra*Chloroketotrihydroxypentamethylenecarboxylic acid (HANTZSCH), 1890, A., 130.
- tri*Chlorolactic acid, preparation of glyoxal derivatives from (PINNER), 1884, A., 1298.
- Chlorolactic acids, decomposition products of the sodium salts of (REISSE), 1890, A., 1097.
- $\alpha$ -Chloro- $\gamma$ -lepidine. See 2'-Chloro-4'-methylquinoline.
- tri*Chlorolimettin (TILDEN), 1892, T., 349.
- Chlorolevulinic acids, *mono*- and *di*- (SEISSL), 1889, A., 489.
- Chloro-2:6-lutidine. See Chloro-2:6-dimethylpyridine.
- di*Chloromaleinamic acid (CIAMICIAN and SILBER), 1890, A., 25.
- Chloromaleic acid (KAUDER), 1885, A., 652; (PERKIN), 1888, T., 706; P., 75.
- di*Chloromaleic acid and its anhydride (KAUDER), 1885, A., 652.
- Chloromaleic anhydride (PERKIN), 1888, T., 703; P., 75.
- di*Chloromaleic phenylimide and  $\alpha$ - and  $\beta$ -*di*chloromaleic *tetrachlorides* (KAUDER), 1885, A., 652.
- Chloromaleinimide. See Maleinimide.
- di*Chloromaleinphenylimido-chloride and -dimethyl and -diethyl ethers (ANSCHÜTZ and BEAVIS), 1891, A., 1047, 1048.
- Chloromecenic acid and its salts (HILSEBEIN), 1885, A., 1202.
- per*Chloromecylene (OST), 1883, A., 796.
- Chloromercuric acid (NEUMANN), 1889, A., 1050.
- tri*Chloromesitylene (FRIEDEL and CRAFTS), 1887, A., 1101.
- Chloromethane. See Methylic chloride.
- di*Chloromethane. See Methylenic dichloride.
- tri*Chloromethane. See Chloroform.
- tetra*Chloromethane. See Carbon tetrachloride.
- Chloromethanedisulphonic acid (ANDREASCH), 1886, A., 787.
- Chloromethoxybenzoic acid (*chloranisic acid*) (SCHALL and DRALLE), 1885, A., 146.
- Chloromethoxybenzoic anhydride (*chloranisaldehyde*) (TIEMANN), 1891, A., 703.
- tetra*Chloromethoxyethane (MAGNANIMI), 1887, A., 28.
- 4'-Chloro-*p*-methoxy-2-methylquinoline (CONRAD and LIMPACH), 1888, A., 853.
- Chloromethoxyisoquinoline [m.p. 73°-74°] (GABRIEL), 1887, A., 62.
- Chloro-*p*-methoxytoluene (SCHALL and DRALLE), 1885, A., 146; (LIMPACH), 1889, A., 499.
- Chloromethyl *tetrachloropropyl* ketones, *di*- and *tri*- (ZINCKE and FUCHS), 1892, A., 1462, 1463.
- di*Chloromethyl chlorovinyl *o*-diketone (ZINCKE and RABINOWITSCH), 1891, A., 690.
- Chloromethylamidobenzoic acids (LA COSTE and BODEWIG), 1885, A., 793.
- diper*Chloromethylamidocyanidine and *diper*chloromethylidiamidocyanidine (WEDDIGE), 1886, A., 324.
- penta*Chloromethylamido-*p*-diketohexene (ZINCKE and FUCHS), 1892, A., 449.
- $\omega$ -Chloromethyl-*o*-amidostyrene (LIPP), 1885, A., 167.
- p*-Chloromethylaniline (MELDOLA and STREATFIELD), 1889, T., 436; P., 98.
- o*-Chloromethylbenzamide (GABRIEL), 1887, A., 1038.
- Chloro- $\alpha$ -methyleinnamic acid. See Chlorophenylcrotonic acid.
- Chloromethylcrotonic acid. See Chlorotiglic acid.
- Chloro-3-methyl-2':3'- or 4'-diethoxyquinoline (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- Chloromethylenephthalide (ZINCKE and COOKSEY), 1890, A., 786.
- tri*Chloromethylethylacetal (MAGNANIMI), 1887, A., 28.

**Chloro-5-methyl-1-ethylglyoxaline**

(*chloroacetaldehyde*) and its derivatives (WALLACH), 1883, A., 49.

*m*-Chloro- $\beta$ -methylhydrindone (V. MILLER and ROHDE), 1890, A., 1140.

$\alpha$ -Chloro- $\alpha$ -methylhydroxybutyric acid (MELIKOFF and PETRENKO-KRITSCHENKO), 1890, A., 862.

$\beta$ -Chloro- $\alpha$ -methyl- $\alpha$ -hydroxybutyric acid (MELIKOFF), 1888, A., 1177.

Chloromethylindene (V. MILLER and ROHDE), 1889, A., 984.

Chloromethyl- $\psi$ -isatin (LA COSTE and BODEWIG), 1885, A., 792.

Chloro- $\alpha$ - and - $\beta$ -methylnaphthalenes (SCHERLER), 1892, A., 494.

Chloro- $\beta$ -methylnaphthalenes, *di*-, *tri*- and *tetra*- (SCHERLER), 1892, A., 493.

Chloro-2'-methyl- $\beta$ -naphthaquinoline (EPHRAIM), 1892, A., 1488.

*di*Chloromethyloxindole (COLMAN), 1889, T., 4; P., 95.

*di*Chloromethylparaconic acid (FITTIG and MILLER), 1890, A., 587.

*tri*Chloromethylparaconic acid (FITTIG), 1888, A., 252; (FITTIG and MILLER), 1890, A., 586.

*tetra*Chloromethylphthalide (ZINCKE and COOKSEY), 1890, A., 786.

Chloromethylpiaselenole (HINSBERG), 1890, A., 973.

*tri*Chloromethylpropylcarbinol (*trichloroanilic alcohol*) and its derivatives (V. GARZAROLLI-THURNLACKH), 1884, A., 1118.

*tri*Chloromethylpurin (FISCHER), 1884, A., 996.

Chloromethylpyridine. See Chloro- $\alpha$ -picoline.

$\alpha\beta$ -*tri*Chloromethyl- $\gamma$ -pyridone and its carboxylic acid (ZINCKE and FUCHS), 1892, A., 450.

Chloromethylquinoline and its derivatives. See Methylquinoline.

Chloromethylstilbene (SUDBOROUGH), 1892, A., 1224.

*tri*Chloromethylsulphonic chloride (MCGOWAN), 1885, A., 367.

preparation of (BASSETT), 1886, A., 1000.

dissociation of (NÖLTING), 1883, A., 38.

action of ammonia on (MCGOWAN), 1884, A., 1126.

*tri*Chloromethylsulphonylthiocarbamide (MCGOWAN), 1887, T., 669.

Chloromethylthiazolecarboxylic acid (WOHMANN), 1891, A., 226.

$\beta$ -*di*Chloromuconamic acid (RUHEMANN and ELLIOTT), 1890, T., 934.

*di*Chloromuconic acid, reduction products of (V. BAEYER and RUPE), 1890, A., 875.

$\beta$ -*di*Chloromuconic acid and its amide (RUHEMANN and ELLIOTT), 1890, T., 932.

*di*Chloro- $\alpha$ -naphtha-*di*chloroquinol (CLAUS), 1886, A., 714.

Chloronaphthalene. See Naphthalene.

$\beta$ -Chloronaphthalenedisulphonic acids (ARMSTRONG and WYNNE), 1890, P., 131.

2-Chloronaphthalene-1:6-disulphonic acid chloride (FORSLING), 1889, A., 276.

Chloronaphthalenesulphonic acid. See Naphthalenesulphonic acid.

*di*Chloro-1:4-naphthaquinol (CLAUS), 1886, A., 714.

Chloronaphthaquinone. See Naphthaquinone.

anilide. See Naphthaquinone anilide.

*di*Chloronaphthaquinonecarboxylic acid (EKSTRAND), 1889, A., 152.

Chloro- $\beta$ -naphthaquinone derivatives (ZINCKE), 1887, A., 53.

*di*Chloro- $\alpha$ -naphthaquinone *di*chloride (CLAUS), 1890, A., 786.

Chloro- $\beta$ -naphthaquinone- $\alpha$ -oximes, *mono*- and *di*- (ZINCKE and SCHMUNK), 1890, A., 1146, 1147.

2:3-*di*Chloro- $\alpha$ -naphthaquinone-3'-sulphonic acid (CLAUS and VAN DER CLOET), 1888, A., 602.

$\beta$ -Chloronaphthaquinonetoluides, *o*- and *p*- (CLAUS and MUELLER), 1886, A., 247.

Chloronaphthoic acid. See Naphthoic acid.

$\alpha$ -Chloronaphthoic trichloride (WOLFENSTEIN), 1888, A., 714; 1889, A., 615.

$\beta$ -Chloronaphthoic trichloride (RABE), 1889, A., 514.

Chloronaphtholactone (EKSTRAND), 1889, A., 153.

Chloronaphthol. See Naphthol.

Chloro- $\beta$ -naphthol-3'-sulphonic acid, derivatives of (ARMSTRONG and ROSSITER), 1889, P., 72.

Chloro- $\alpha$ -naphthonitrile (EKSTRAND), 1884, A., 1361.

Chloro- $\beta$ -naphthonitriles, *mono*- and *di*-, and their derivatives (EKSTRAND), 1891, A., 932.

4'-Chloronaphthostyryl (EKSTRAND), 1889, A., 153.

*di*Chloronaphthostyryl (EKSTRAND), 1886, A., 715.

Chloronaphthylamine. See Naphthylamine.

- $\beta$ -Chloro- $\alpha$ -naphthylamine-2'-sulphonic acid** (CLEVE), 1892, A., 1479.
- $\alpha$ -Chloro- $\beta$ -naphthylaminesulphonic acids** (the [1:2:4], [1:2:3], and [1:2:2] acids) (ARMSTRONG and WYNNE), 1889, P., 36, 48.
- Chloro- $\alpha$ - and - $\beta$ -naphthylethylenes** (LEROY), 1892, A., 495.
- 6-Chloronicotinic acid** (v. PECHMANN and WELSH), 1885, T., 151.
- diChloronicotinic acid** (SEYFFERTH), 1887, A., 158.
- $\omega$ -diChloro-*o*-nitracetophenone** (GEVEKOKT), 1884, A., 445.
- Chloro-3-nitr-*p*-acetotoluidide** (ECKENROTH and DONNER), 1891, A., 195.
- 3:6-Chloronitr-*p*-acetotoluide** (CLAUS and BÖCHER), 1892, A., 173.
- Chlorotrinitranilidonaphthalene** (CLEVE), 1890, A., 626.
- p*-Chloro-*m*-nitraniline and its derivatives** (CLAUS and STIEBEL), 1887, A., 810.
- diChloronitr-, 2:4:6-trichloro-3:5-dinitr-, and 2:4:6-trichloro-3-nitr-anis-oil** (HUGOUNENQ), 1890, A., 240.
- Chloronitrazobenzene.** See Azobenzene.
- Chloronitrethylbenzenes** (ISTRATI), 1888, A., 260.
- o*-diChloronitrethylbenzoylcarboxylic acid** (ZINCKE and LATTEN), 1892, A., 1229; (ZINCKE and SCHARFENBERG), 1892, A., 1232.
- diChloronitrethyl-*m*-diazine** (PINNER), 1889, A., 1007.
- Chloronitriles, volatility of** (HENRY), 1885, A., 1044.
- Chloronitrobenzaldehyde.** See Benzaldehyde.
- p*-Chloro-*m*-nitrobenzanilide** (RAVEILL), 1884, A., 601.
- Chloronitrobenzene.** See Benzene.
- 4-Chloro-3-nitrobenzenesulphonic acid** (FISCHER), 1892, A., 182.
- 2-Chloro-5-nitrobenzenesulphonic acid** (CLAUS and MANN), 1891, A., 1488; (FISCHER), 1892, A., 182.
- Chloronitrobenzoic acid.** See Benzoic acid.
- Chloronitrobenzonitriles** (CLAUS and KURZ), 1888, A., 594.
- o*-Chloro-*p*-nitrobenzyl alcohol, anilide and methyl and ethyl ethers** (WITT), 1892, A., 444.
- bromide** (TIEMANN), 1891, A., 704.
- derivatives of** (WITT), 1892, A., 444.
- Chloronitrocampbor.** See Camphor.
- $\alpha$ -Chlor-*o*-, -*m*- and -*p*-nitrocinnamaldehydes** (NAAR), 1891, A., 562.
- m*-Chloro-*o*-nitrocinnamic acid and ketone** (EICHENGRÜN and EINHORN), 1891, A., 1098.
- Chloro-*o*- and -*m*-nitrocinnamic acids** (NAAR), 1891, A., 564.
- 2:5-Chloronitro-*p*-cymene and 2-chloro-dinitro-*p*-cymene** (FILETIAN and CROSA), 1889, A., 493.
- Chloronitrocymenesulphonic acid** (CARARA), 1890, A., 780.
- o*-diChloro-*p*-dinitro-dibenzylamine and -dibenzylaniline** (WITT), 1892, A., 445.
- 2:3:5-diChloronitrodihydroterephthalic acid** (LEVY and ANDREOCCI), 1888, A., 1091.
- 3:4:3-diChloronitro-1:2-diketohydronaphthalene hydrate** (ZINCKE and SCHARFENBERG), 1892, A., 1232.
- allo-*m*-Chloro-*o*-nitrodiphenylhydrazine, preparation of** (WILLGERODT and ELLON), 1891, A., 1361.
- m*-Chloro-*o*-nitrohydrazobenzene** (WILLGERODT and FERRO), 1888, A., 830.
- o*-Chloronitrohydroxyethylbenzoic acid, lactone of** (ZINCKE and LATTEN), 1892, A., 1230.
- 3':4'-diChlorodinitro-2'-hydroxy-3-methylquinoline** (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- m*-Chloro-*o*-nitro- $\beta$ -hydroxyphenylethyl methyl ketone** (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1099.
- m*-Chloro-*o*-nitro- $\beta$ -hydroxyphenylpropionamide** (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1100.
- m*-Chloro-*o*-nitro- $\beta$ -hydroxyphenylpropionic acids** (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1099.
- m*-Chloro-*o*-nitro- $\beta$ -hydroxyphenylpropionic aldehyde** (EICHENGRÜN and EINHORN), 1891, A., 1100.
- Chlorodinitromethane, reduction of** (RASCHIG), 1886, A., 323.
- diChlorodinitromethane** (LOSANITSCH), 1884, A., 1108.
- triChloronitromethane.** See Chloropierin.
- o*-Chloronitromethoxyethylbenzoic acid** (ZINCKE and LATTEN), 1892, A., 1231.
- diChloronitromethylphthalide** (ZINCKE and LATTEN), 1892, A., 1231.
- 4'-Chloro-3'-nitro-2'-methylquinoline** (CONRAD and LIMPACH), 1888, A., 1111.
- $\beta$ -Chloro- $\alpha$ -nitronaphthalene [1:2']** (ARMSTRONG and WYNNE), 1889, P., 71.



- di*Chloro*di*nitronaphthalenes (CLEVE), 1890, A., 626.
- $\beta$ -Chloro- $\alpha$ -nitronaphthalene-2'-sulphonic acid (CLEVE), 1892, A., 1478.
- $\alpha\beta$ -Chloronitro- $\beta$ -naphthaquinone (ZINCKE and KEGEL), 1889, A., 266.
- 5-Chloro- $\delta$ -nitro- $\alpha$ -naphthoic acid (EKSTRAND), 1886, A., 156.
- 1:1':4'-Chloronitronaphthoic acid (EKSTRAND), 1889, A., 53.
- $\beta$ -Chloro-2'-nitronaphthol (GAESS), 1892, A., 1229.
- Chloro*tri*nitronaphthol (CLEVE), 1890, A., 627.
- Chloronitronaphthylamine (CLEVE), 1890, A., 626.
- Chloronitronitrosoazoxybenzene (WILLGERODT and MÜHE), 1892, A., 455.
- tri*Chloronitrophenetol (LAMPERT), 1886, A., 616.
- Chloronitrophenol. See Phenol.
- m*-Chloro-*o*-nitrophenyl- $\beta$ -bromopropionic acid (EICHENGÜN and EINHORN), 1890, A., 1127.
- Chloronitrophenylethanes (ISTRATI), 1888, A., 260.
- di*Chloronitrophenylethylglyoxylic acid (ZINCKE and LATTEN), 1892, A., 1229; (ZINCKE and SCHARFENBERG), 1892, A., 1232.
- tri*Chloronitrophenylic-*m*- and -*o*-nitrobenzoates (DACCOMO), 1885, A., 890.
- 1':4':3'-Chloronitrophenylisoquinoline (GABRIEL), 1886, A., 631.
- di*Chloronitropyromucic acid (HILL and JACKSON), 1890, A., 601.
- Chloronitroquinones (GUARESCHI and DACCOMO), 1885, A., 891.
- 2:4:6-Chloro*di*nitrosocinol (KEHRMANN), 1890, A., 241.
- Chloronitrosoazobenzene. See Azobenzene.
- p*-Chloro*di*nitrosoazoxybenzene (WILLGERODT and BÖHM), 1891, A., 905.
- p*-*di*Chloro-*p*-*di*nitrosobenzene (KEHRMANN), 1889, A., 245.
- Chloro-*p*-nitrosodiphenylamine (IKUTA), 1888, A., 468.
- Chloronitrosonaphtharesorcinol (v. KOSTANECKI), 1889, A., 887.
- di*Chloro*di*nitrosoditoluene (*bis*-*o*-chloronitrosylbenzyl) (BEHREND and NISSEN), 1892, A., 1200.
- o*-*di*Chloro-*p*-*di*nitrostilbene (WITT), 1892, A., 444.
- $\omega$ -Chloro-*o*-nitrostyrene (LIPP), 1884, A., 1030.
- m*-Chloro-*o*-nitrostyryl methyl ketone (EICHENGÜN and EINHORN), 1891, A., 1099.
- o*-*di*Chloro*di*nitrosyldibenzyl (BEHREND and NISSEN), 1892, A., 1200.
- Chloronitrothiophen (ROSENBERG), 1886, A., 534.
- tri*Chloronitrotoluene. See Toluene.
- Chloronitro-*p*-toluic acid. See *p*-Toluic acid.
- 2-Chloro-5-nitro-*p*-toluidine and 2-chloro-6-nitro-*p*-toluidine (CLAUS and DAVIDSEN), 1892, A., 172.
- 3-Chloro-6-nitro-*p*-toluidine and 3-chloro-6-nitro-*p*-toluonitrile (CLAUS and BÖCHER), 1892, A., 173.
- 2-Chloro-5-nitro-*p*-toluonitrile (CLAUS and DAVIDSEN), 1892, A., 172.
- 4-Chloro-5-nitro-*m*-xylene (CLAUS and GRONEWEG), 1891, A., 921.
- 4-Chloro-6-nitro-*m*-xylene (AHRENS), 1892, A., 1437.
- 4:6-*di*Chloro-2:5-*di*nitro-*m*-xylene (KOCH), 1890, A., 1248.
- 4:5-*di*Chloro-3:6-*di*nitro-*o*-xylene (CLAUS, RAPS, HERFELD and BERKEFELD), 1891, A., 1201.
- 2:5-*di*Chloro*di*nitro-*p*-xylene (KLUGE), 1885, A., 1208.
- Chlorononane, from American petroleum (LEMOINE), 1884, A., 1106.
- Chloropal, analyses of (SMITH), 1884, A., 662.
- variety of, from Albemarle Co., Virginia (CHAPPELL), 1885, A., 228.
- di*Chloropararosaniline (HEUMANN and HEIDLBERG), 1886, A., 942.
- Chloropentamethylbenzene (TÖHL), 1892, A., 968.
- Chloro- $\alpha$ -pentaresorcinoldichroin ether (BRUNNER and CHUIT), 1888, A., 1182.
- Chloropentenyl alcohol. See Methylchlorallylcarbinol.
- Chloropentethylbenzene (ISTRATI), 1886, A., 231.
- penta*Chloropentolamide. See *penta*-Chlorobutinenecarboxylamide.
- di*Chlorophenanthrone, reduction of (LACHOWICZ), 1884, A., 81.
- tri*Chlorophenetol (LAMPERT), 1886, A., 616.
- Chlorophenol. See Phenol.
- o*-*p*-*di*Chlorophenol-*o*-sulphonic acid, action of sulphuric acid on (GORDON), 1891, P., 64.
- tri*Chlorophenomalic acid. See Acetylacrylic acid, trichloro-.
- tri*Chlorophenoxyethylene (*phenyl tri*-chlorovinyl ether) (MICHAEL), 1886, A., 614.
- Chlorophenylacetonitrile (MICHAEL and JEANPRETRE), 1892, A., 1038.

- di*Chlorophenylamido- $\beta$ -naphthol (ZINCKE and KEGEL), 1889, A., 268.
- p*-Chlorophenylisobutane (v. DOBRZYCKI), 1888, A., 369.
- Chlorophenylbutyric acid (FITTIG and MORRIS), 1890, A., 891; (v. MILLER and ROHDE), 1890, A., 1140.
- di-p*-Chlorophenylcarbamide (HEWITT), 1891, T., 212.
- Chlorophenylcrotonic acids. See Phenylcrotonic acids.
- di*Chlorophenylenediamine hydrochloride (MÖHLAU), 1886, A., 941.
- Chlorophenylethanes, *o*-, *m*- and *p*- (ISTRATI), 1885, A., 251.
- Chlorophenylhydrazine and its derivatives. See Phenylhydrazine.
- Chlorophenyl benzoates (MOSSO), 1888, A., 456.
- o*-, *m*- and *p*- (DACCOMO), 1892, A., 308.
- phthalate (MOSSO), 1888, A., 456.
- sulphide (MICHAELIS and GODCHAUX), 1891, A., 715.
- dithiocarbonate (DACCOMO), 1892, A., 306, 307.
- xanthate (DACCOMO), 1892, A., 308.
- tri*Chlorophenyl *m*-nitrobenzoate (DACCOMO), 1885, A., 890.
- p*-Chlorophenyl phenylsemithiocarbazide (HEWITT), 1891, T., 212.
- p*-Chloro-2'-phenylindazole (PAAL), 1891, A., 724.
- Chloro-2'-phenylindole (BISCHLER), 1892, A., 1466.
- Chlorophenylmethylenesulphone (OTTO), 1888, A., 433.
- m*-Chloro- $\beta$ -phenyl- $\alpha$ -methylpropionic acid (v. MILLER and ROHDE), 1890, A., 1140.
- di*Chlorophenylmethylpyrazolonesulphonic chloride (MÖLLENHOFF), 1892, A., 1246.
- Chlorophenylmethylsulphones, *mono*- and *di*- (OTTO), 1890, A., 380, 381.
- Chlorophenylparaconic acid. See Phenylparaconic acid.
- az*-Chlorophenyl-*ald*-phenylnaphthotriazine (MELDOLA and FORSTER), 1891, T., 690.
- Chlorophenylphenylsemithiocarbazides, *o*- and *p*- (HEWITT), 1891, T., 210, 212.
- p*-Chloro- $\beta$ -phenylpropionic acid (MIERSCH), 1892, A., 1222.
- di*Chloro- $\beta$ -phenylpropionic acids,  $\alpha$ - and  $\beta$ - (ERLENMEYER), 1883, A., 196.
- Chloro- $\beta$ -phenylpropionic acids, *m*-, *o*-, and *p*- (HERZBERG), 1885, A., 661.
- $\alpha\beta$ -*tri*Chloro- $\gamma$ -phenylpyridone and  $\alpha\beta$ -*tri*chlorophenyl- $\gamma$ -pyridonecarboxylic acid (ZINCKE and FUCHS), 1892, A., 448.
- o*-Chlorophenylsemicarbazide (HEWITT), 1891, T., 210.
- p*-Chlorophenylsulphonehydroxypropionic acid (KÖNIG), 1892, A., 1091.
- p*-Chlorophenylurazole (HEWITT), 1891, T., 212.
- Chlorophloroglucinols (HAZURA and BENEDIKT), 1886, A., 52.
- tri*Chlorophloroglucinol (WEBSTER), 1885, T., 423; (ZINCKE and KEGEL), 1889, A., 967.
- Chlorophthalic acids. See Phthalic acids.
- Chlorophthalic anhydride. See Phthalic anhydride.
- Chlorophthalic chloride (GRAEBE and RÉE), 1886, T., 527.
- di*Chlorophthalide (LE ROYER), 1887, A., 832.
- p-di*Chlorophthalide (GUARESCHI), 1886, A., 808.
- $\beta$ -Chlorophthalimide (GRAEBE and RÉE), 1886, T., 529.
- di*Chlorophthalimide (LE ROYER), 1887, A., 832.
- Chlorophyll and chlorophyllan. See Agricultural chemistry.
- Chlorophyllite from Loquidy, near Nantes (BARET), 1883, A., 443.
- Chloro- $\alpha$ -picolines (*chloromethylpyridine*), *mono*-, *hexa*- and *penta*- (OST), 1883, A., 793.
- di*Chloro- $\alpha$ -picoline (COLLIE and MYERS), 1892, T., 725.
- Chloropicolinic acid, [m.p. 180°] (SEYFERTH), 1887, A., 157.
- Chloropicolinic acid [m.p. 168°], *dichloropicolinic acid* and their salts (OST), 1883, A., 794.
- Chloropierin, reduction of (RASCHIG), 1886, A., 323.
- syntheses with (ELBS), 1883, A., 1000.
- di*Chloropiperazine (SCHMIDT and WICHMANN), 1892, A., 211.
- Chloroplastids and chloroplastin (SCHWARTZ), 1888, A., 983.
- Chloroplatinic acid (PIGEON), 1891, A., 1325.
- Chloroprehnitenes, *mono*- and *di*- (TÖHL), 1892, A., 967.
- $\alpha$ -*di*Chloropropaldehyde (SPRING and TART), 1890, A., 955.
- Chloropropanes, *tri*- and *tetra*- (SPRING and WINSSINGER), 1883, A., 659.
- 1:2:3-*tri*Chloropropane. See Trichlorohydrin.

- herv*Chloropropane (LEVY and CURCHOD), 1889, A., 1136.
- Chloropropanesulphonic acid (SPRING and WINSSINGER), 1883, A., 659.
- tri*Chloropropenylquinoline (EINHORN and LEHNERING), 1888, A., 1208.
- $\beta$ -*di*Chloropropionic acid, and its derivatives (FROMME and OTTO), 1887, A., 912.
- tetra*Chloropropionic acid (MABERY and SMITH), 1890, A., 27.
- $\alpha$ -*di*Chloropropionic anhydride (OTTO and HOLST), 1890, A., 1327.
- $\alpha$ -*di*Chloropropionitrile, solid (OTTO and VOIGT), 1887, A., 1024.
- molecular weight of (OTTO), 1890, A., 726.
- o-penta*Chloropropionylbenzoic acid (ZINCKE and COOKSEY), 1890, A., 785.
- $\beta$ - and  $\gamma$ -Chloropropylbenzamides (GABRIEL and HEYMAN), 1890, A., 1268; (GABRIEL and ELFELDT), 1892, A., 213.
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- tri*Chloropropyleneoxidecarboxylamide (LEVY, WITTE and CURCHOD), 1890, A., 234.
- Chloropropylenes. See Propylenes.
- Chloropropylene oxide. See Epichlorhydrin.
- Chloroisopropyl benzoate, preparation of (MORLEY and GREEN), 1885, T., 135.
- 2'-Chloro-2-isopropylquinoline (WIDMAN), 1886, A., 465.
- Chloropyrenepicric acid (GOLDSCHMIEDT and WEGSCHEIDER), 1883, A., 1001.
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- Chloropyridine- $\alpha$ -carboxylic acid [m.p. 180°] (*chloropicolinic acid*) (SEYFFERTH), 1887, A., 157.
- Chloropyridine- $\alpha$ -carboxylic acids, *mono*- and *di*- (OST), 1883, A., 794.
- Chloropyridine- $\beta$ -carboxylic acid (*chloronicotinic acid*) (V. PECHMANN and WELSH), 1885, T., 151.
- di*Chloropyridinecarboxylic acid [ $\text{Cl}_2 : \text{COOH} = 1 : 6 : 4$ ] (?) (BEHRMANN and V. HOFMANN), 1885, A., 139.
- di*Chloropyridine- $\beta$ -carboxylic acid (SEYFFERTH), 1887, A., 158.
- 2:6:*di*Chloropyridine-3:5-dicarboxylic acid (GUTHZEIT and DRESSEL), 1891, A., 940.
- Chloropyrimidine. See Chloro-*m*-diazine.
- tetra*Chloropyrocatechol (ZINCKE), 1887, A., 808; (ZINCKE and KÜSTER), 1888, A., 1278.
- per*Chloropyrocoll, action of phosphorus pentachloride on (CIAMICIAN and SILBER), 1884, A., 176.
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- tri*Chloropyrogallol (WEBSTER), 1884, T., 205; (HANTZSCH and SCHNITER), 1887, A., 925.
- Chloropyromecenic acid (HILSEBEIN), 1885, A., 1203.
- tri*Chloropyromucamide (HILL and JACKSON), 1890, A., 601.
- Chloropyromucic acid. See Pyromucic acid.
- Chloropyrotritaric acid (DIETRICH and PAUL), 1887, A., 658.
- tetra*Chloropyrroline, and synthesis of (CIAMICIAN and SILBER), 1884, A., 292, 293.
- di*Chloropyruvic acid (HANTZSCH), 1890, A., 132.
- $\beta$ -5-*di*Chloroquinazoline (ABT), 1888, A., 610.
- Chloroquinol (SCHEIDT), 1884, A., 429.
- m-di*Chloroquinol (KEHRMANN and TIESLER), 1890, A., 242.
- tetra*Chloroquinol (SUTKOWSKI), 1887, A., 42.
- $\alpha$ -Chloro- $\beta$ -quinolinecarboxylic acid (FRIEDLÄNDER and GÖHRING), 1884, A., 1020.
- Chloroquinolines and derivatives. See Quinolines.
- 1-Chloroquinoline-4-sulphonamide, -sulphonic acid and -sulphonic chloride (CLAUS and POSSELT), 1890, A., 522, 523.
- Chloroquinone. See Quinone.
- Chloroquinonechlorimide (KOLLREPP), 1886, A., 1019.
- tri*Chloroquinonechlorimide and *mono*- and *di*-chloroquinonedianilides (ANDRESEN), 1884, A., 431.
- di*Chloroquinonedichlorimide (MÖHLAU), 1886, A., 941.
- di*Chloroquinonedihydrodicarboxylic acid (HANTZSCH and ZECKENDORF), 1888, A., 278.
- tri*Chloroquinoneimide hydrochloride (ANDRESEN), 1884, A., 431.
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- di*Chlororufigallol (WEBSTER and HUNT), 1889, A., 405.
- 5-Chlorosalicylic acid (SMITH and KNERR), 1886, A., 704.
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- 2:4-*di*Chlorosalicylic acid (ZINCKE and WALBAUM), 1891, A., 711.



- 3:5-*di*Chlorosalicylic acids (EINHORN and KNERR), 1886, A., 704; (HECHT), 1890, A., 1418.
- di*Chlorosilicon-*di*- $\beta$ -naphthylidiamide, -diphenylidiamide, -2-ditolyldiamide and -dixylyldiamide (HARDEN), 1886, P., 251; 1887, T., 45, 40, 44.
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- Chlorostannic acid (ENGEL), 1886, A., 984; (SEUBERT), 1887, A., 554.
- Chlorostearic acids, *mono*- and *di*- (PIOTROWSKI), 1890, A., 1396.
- Chlorostychnine (SHENSTONE), 1885, T., 141; P., 5.
- tri*Chlorostychnine (STOEHR), 1891, A., 86.
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- Chlorosulphonic acid, new mode of formation of (BILLITZ and HEUMANN), 1883, A., 710.
- di*Chlorosulphopyromucic acid (HILL and JACKSON), 1890, A., 601.
- Chloroterebilic acid, and some of its salts (ROSER), 1884, A., 460.
- p*-*di*Chloroterephthalamide (LEVY and CURCHOD), 1889, A., 1179.
- Chloroterephthalic acid (FILETI and CROSA), 1889, A., 496.
- di*Chloroterephthalic acid (LEVY and ANDREOCCHI), 1888, A., 841, 1091.
- p*-*di*Chloroterephthalic chloride (LEVY and CURCHOD), 1889, A., 1179.
- tri*Chlorotetraketohexamethylene hydrate (LANDOLT), 1892, A., 835.
- tetra*Chlorotetraketohexamethylene (NEF), 1890, A., 1271; (LANDOLT), 1892, A., 836.
- tetra*Chlorotetra-methoxy- and -ethoxyquinhydrones (KEHRMANN), 1891, A., 905.
- Chlorotetramine-chromic and -cobalt salts (JÖRGENSEN), 1890, A., 1213, 1214.
- di*Chlorotetrapyridinerhodium hydrochloride (JÖRGENSEN), 1889, A., 352.
- $\mu$ -Chlorothiazole (SCHATZMANN), 1891, A., 745.
- Chlorothiophen (WEITZ), 1884, A., 1130.
- tri*Chlorothiophen, and its derivatives (ROSENBERG), 1886, A., 534.
- tetra*Chlorothiophen *tetrachloride* (WILLGERODT), 1886, A., 339.
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- tri*Chlorothiophensulphonic anhydride (ROSENBERG), 1886, A., 534.
- $\alpha$ -Chlorothymoquinol (SCHNITZER), 1887, A., 720.
- Chlorothymoquinones, *o*- and *m*- (SCHNITZER), 1887, A., 720; (MAZZARA), 1890, A., 753.
- Chlorotiglamide and chlorotiglic acids (OTTO and HOLST), 1890, A., 958.
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- $\omega$ -Chloro-*m*-toluamide (REINGLASS), 1891, A., 1344.
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- tri*Chlorotoluquinone (CLAUS and RIEMANN), 1883, A., 1112.
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- o*-Chloro-*m*-tolyl and *m*-chloro-*o*-tolyl methyl ketones (CLAUS), 1891, A., 911.
- p*-Chloro-*m*-tolyl methyl ketone and ketoxime (CLAUS), 1892, A., 1201.
- tri*Chloro-*o*-tolylacetamide (CLOËZ), 1887, A., 1098.
- di*Chlorotolylbenzoic acid (LE ROYER), 1887, A., 832.
- di*-*o*-Chloro-*m*-tolylcarbamide (KOCK), 1887, A., 810.
- tri*Chlorotolylenediamines,  $\alpha$ - and  $\beta$ - (SEELIG), 1885, A., 770.
- di*Chloro-*o*-tolyllic phosphate (STUART), 1888, T., 403; P., 24.
- Chloro-*p*-tolylmethylsulphones, *mono*- and *di*- (OTTO), 1890, A., 380, 381.
- 1'-Chloro-3'-*m*-tolylisoquinoline (HEILMANN), 1890, A., 625; 1891, A., 202.

- 1'-Chloro-3'-*p*-tolylisoquinoline (RUHE-MANN), 1892, A., 474.
- di*-o-Chloro-*m*-tolylthiocarbamide (KOCK), 1887, A., 810.
- di*Chlorotriisobutylene *dichloride* (MARBOT and GENTIL), 1889, A., 843.
- Chlorotriethylallylammonium chlorides,  $\alpha$ - and  $\beta$ - (REBOUL), 1883, A., 307.
- heva*Chlorotriketohexamethylene (ZINCKE and KEGEL), 1889, A., 967.
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- tri*Chlorotriketovaleric acid (HANTZSCH), 1888, A., 1192.
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- heva*Chlorotrimethylenetrisulphone (CAMPS), 1892, A., 592.
- 4'-Chloro-1:3:2'-trimethylquinoline (CONRAD and LIMPACH), 1888, A., 503.
- Chlorotrimethyluracil (HAGEN), 1888, A., 582.
- Chlorotriphenylfurfuran, reduction of (JAPP and KLINGEMANN), 1889, P., 136; 1890, T., 674.
- tri*Chlorotriphenylrosanilines (HEUMANN and HEIDLER), 1886, A., 943.
- Chlorovalerolactone (WOLFF), 1885, A., 1124.
- di*Chloro-*o*-vinylbenzoic acid (ZINCKE and FRÖHLICH), 1887, A., 955; (ZINCKE), 1888, A., 159.
- tri*Chloro-*o*-vinylbenzoic acid (ZINCKE and FRÖHLICH), 1887, A., 955; (ZINCKE), 1888, A., 490.
- o*-*di*Chlorovinylbenzoylcarboxylic acid (ZINCKE and KEGEL), 1889, A., 270.
- o*-*tri*Chlorovinylbenzoylcarboxylic acid (ZINCKE), 1888, A., 490.
- o*-*di*Chloro- and *tri*chloro-vinyl*di*- $\alpha$ -chlorophenylacetic acids (ZINCKE and KEGEL), 1889, A., 270.
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- p*-*di*Chloro-*p*-oximidoquinone (KEHRMANN), 1889, A., 244.
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- m*-*di*Chloroxyazobenzene (SCHULTZ), 1884, A., 903.
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- 1'-Chlor-2'-oxy-4'-benzylisoquinoline (EICHELBaum), 1888, A., 1301.
- Chloroxybutane (ZIKES), 1885, A., 1046.
- Chloroxy $\beta$ -tachlorobenzene (BENEDIKT and V. SCHMIDT), 1883, A., 1119.
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- di*Chloroxydimethylpurin (FISCHER), 1884, A., 997.
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- 5-Chloro-*o*-xylydine [1:2:4-] (CLAUS), 1892, A., 1202.
- 2-Chloro-*p*-xylydine [1:4:5-] (KLUGE), 1885, A., 1208.
- 4:6-*di*Chloro-*m*-1:3-xylo-2:5-quinol and quinone (CLAUS and RUNSCHKE), 1890, A., 1247.
- 4:5-*di*Chloro-*o*-xylo-3:6-quinol and quinone (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1201.
- 3-Chloro-1:2-xylyl methyl 6(?)*-ketone* and its derivatives (CLAUS), 1892, A., 1202.
- 4-Chloro-1:2-xylyl methyl 5-ketone and derivatives (CLAUS), 1891, A., 912; 1892, A., 1201.
- Chloroxylylenephthalimide (STRASSMANN), 1888, A., 475.
- tetra*Chloroxylylenic oxide (GRAEBE), 1887, A., 832.
- di*Chloroxymethyluracil (BEHREND), 1887, A., 129.
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- $\psi$ -**Cumene-5-sulphonic acid**, and 6-bromo- (JACOBSEN), 1886, A., 709.
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- $\psi$ -**Cumidoethylphthalimide** (NEWMAN), 1891, A., 1208.
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- o*-**Cuminic acid** (CLAUS and SCHULTE IM HOF), 1887, A., 264.
- p*-**Cuminic acid** (FRANCKSEN), 1884, A., 1009.
- n*-**Cuminic acid** (*propylbenzoic acid*), and its salts (KÖRNER), 1883, A., 322.
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- n*-**Cuminic acid**, 2-nitro- (KÖRNER), 1883, A., 322; (WIDMAN), 1886, A., 464.
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- $\psi$ -**Cuminic acid** (*durylic acid*, 2:4:5-trimethylbenzoic acid) (GISSMANN), 1883, A., 333; (CLAUS), 1890, A., 981.
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- $\psi$ -**Cuminic acid**, *di*amido- (NEF), 1888, T., 433.
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- $\psi$ -Cumylantipyrin** (HALLER), 1885, A., 818.
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- $\psi$ -Cumylbenzylidenehydrazine** (RUHEMANN), 1890, T., 55.
- $\psi$ -Cumylcarbamide** (ENGEL), 1885, A., 1216.
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- $\psi$ -Cumylenediamine** (EDLER), 1885, A., 772; (NÖLTING and BAUMANN), 1885, A., 893.
- m*- **$\psi$ -Cumylenediamine** (MAYER), 1887, A., 659.
- Cumylenediazosulphide** (JACOBSON and NEY), 1889, A., 772.
- $\psi$ -Cumylenethenylamidine**, amido- (AUWERS), 1886, A., 144.
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- Cumylidenbenzidine** (SCHIFF and VANNI), 1890, A., 1298.
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*p*-Cymo- and *p*-isocymo-3:6-quinols and quinones, 2:5-dibromo- (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1201, 1200.



*m*-Cymo-2:5-quinone, 4:6-dibromo- (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1200.

*o*-Cymo-3:6-quinone, 4:5-dibromo- (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1201.

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- $\alpha\beta$ -Diacetophenylhydrazide** (MICHAELIS and SCHMIDT), 1887, A., 366; 1889, A., 1159.
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- Diisomamylselenocarbamide and *u*-diisomamylthiocarbamide** (SPICA and CARARA), 1892, A., 216.
- Diamylsulphonamic acid** (TRAUBE), 1891, A., 569.
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- Diisomamylsulphonedimethylmethane** (STUFFER), 1891, A., 180.
- Diamyldithioxamide** (WALLACH and REINHARDT), 1891, A., 1008.
- Dianhydrolupinine** (BAUMERT), 1883, A., 100.
- Dianildicyandiamide** (PELLIZZARI and TIVOLI), 1892, A., 1323.
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- Dianilidodicarboxylic acid** (LOEWENHERZ), 1892, A., 1464.
- Dianilidodimethenylidamidoresorcinol** (JACOBSON and SCHENCKE), 1890, A., 248.
- 3:6-Dianilido-2-ethoxy-1:4-quinone**, 5-chloro- (KEHRMANN), 1891, A., 903.
- Dianilidohydroxybenzene** (MINUNNI), 1891, A., 191.
- Dianilidomethylbromacetoacetic acid** (REISSERT), 1890, A., 642.
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- 2:2'-Dianilidonaphthalene** (CLAUSIUS), 1890, A., 629.
- p*-Dianilidonaphthalene and dianilidonaphthaquinone** (FISCHER and HEPP), 1890, A., 911.
- p*-Dianilidodi-*m*-nitrobenzophenone** (SCHÖPFER), 1892, A., 336.
- Dianilidophenylquinoneimide**, chloro- (ANDRESEN), 1884, A., 431.
- Dianilido-*o*-phosphoric acid** (MICHAELIS and V. SODEN), 1885, A., 1134.
- Dianilidophthalylidamide** (HÖTTE), 1887, A., 670.
- Dianilidopropyl alcohol** (*dianilglycerol*) (FAUCONNIER), 1888, A., 586, 1281.
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- Dianisylamine** (STEINHART), 1888, A., 51.
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- Dianisylpentolic acid** (FITTIG), 1890, A., 584; (FITTIG and POLITIS), 1890, A., 771.
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- Dibenzamidodiethylic disulphide** (COBLENTZ and GABRIEL), 1891, A., 817.
- Dibenzamidodihydroxytetrene** (RÜGHEIMER), 1889, A., 249, 391.
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- o-Dibenzamidotoluene**, nitro- (BISTRZYCKI and ULFFERS), 1892, A., 1197.
- Dibenzanilide** (COHEN), 1890, P., 162; 1891, T., 67.
- Dibenzdiamidylcarbamide** (PINNER), 1891, A., 60.
- Dibenzenesulphone-diphenetidine and -p-phenylenediamine** (HINSBERG), 1892, A., 65.
- Dibenzenesulphone-o-tolylenediamine** (HINSBERG), 1892, A., 66.
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- Dibenzenyldiazoximeoxalene** (WURM), 1890, A., 259.
- Dibenzenylethyleneamidoxime** (FALCK), 1886, A., 797.
- Dibenzenylpiperidine** (RÜGHEIMER), 1891, A., 1246.
- Dibenzhydroxamic acid** (MÜLLER), 1883, A., 1130.
- Dibenzimidine** (PINNER), 1885, A., 158; 1892, A., 1110.
- Dibenzimidinesulphonic acid** (PINNER), 1885, A., 158.
- Dibenzimido-oxide** (GUMPERT), 1885, A., 53.
- Dibenzobenzidine** (STERN), 1884, A., 1015.

- Dibenzobenzyl-*m*-phenylenediamine** (MELDOLA and COSTE), 1889, T., 598.
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- Dibenzobromotolylenediamine** (HARTMANN), 1890, A., 976.
- Dibenzocarbamide** (HOLLEMAN), 1891, A., 65, 446.
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- Dibenzodicinnylenediamine** (JAPP and WYNNE), 1886, T., 469.
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- Dibenzodimethyldiamidobenzophenone** (NATHANSON and MÜLLER), 1889, A., 1188.
- Dibenzoethylenephenyldiamine** (NEWMAN), 1891, A., 1207.
- s*-Dibenzohydrazine** (CURTIUS), 1891, A., 56.
- Dibenzomethylenediamine** (*hipparaffin*) (KRAUT and SCHWARTZ), 1884, A., 838.
- Dibenzomethylenic glycol** (DE NEUFVILLE and V. PECHMANN), 1891, A., 319.
- Dibenzomethylhydrazine** (V. BRÜNING), 1890, A., 23.
- Dibenzo-*αβ*-naphthylenediamine** (HINSBERG and V. UDRÁNSZKY), 1890, A., 370.
- Dibenzopentamethylenediamine** (V. UDRÁNSZKY and BAUMANN), 1888, A., 1297.
- Dibenzo-*o*-phenylenediamine** (HINSBERG and V. UDRÁNSZKY), 1890, A., 370.
- Dibenzo-*ψ*-phenylhydrazidomandelic acid** (REISSERT and KAYSER), 1891, A., 438.
- Dibenzophenylhydrazines**, isomeric (MICHAELIS and SCHMIDT), 1887, A., 365.
- Dibenzophenylmethylhydrazine** (TAFEL), 1885, A., 1060.
- Dibenzopropylenediamine** (STRACHE), 1888, A., 1173.
- Dibenzosalicylin** (FRITSCH), 1891, A., 708.
- Dibenzo-*o*-tolylenediamine** (HINSBERG and V. UDRÁNSZKY), 1890, A., 370.
- Dibenzotrimethylenediamine** (STRACHE), 1888, A., 1174.
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- Dibenzoyl ketone**. See Diphenyl triketone.
- Dibenzoylacetic acid** (V. BAEYER and PERKIN), 1884, A., 64; (PERKIN), 1885, T., 246.
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- Dibenzoylacetone** (FISCHER and BÜLOW), 1885, A., 1237.
- Dibenzoylacetoneitrile** (V. MEYER), 1890, A., 1251.
- Dibenzoylamylenenitrolamine** (WALLACH and WAHL), 1891, A., 1005.
- Dibenzoyldibromodiamidophenyl**. See Bisbenzobromamidophenyl.
- Dibenzoylbromocarbinyl acetate** (DE NEUFVILLE and V. PECHMANN), 1891, A., 318.
- Dibenzoyldibromomethane** (DE NEUFVILLE and V. PECHMANN), 1891, A., 318.
- Dibenzoylcarbinyl acetate** (DE NEUFVILLE and V. PECHMANN), 1891, A., 318.
- Dibenzoylcinnamenimide** (JAPP and KLINGEMANN), 1890, T., 692.
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- dibromide (JAPP and KLINGEMANN), 1890, T., 693.
- Dibenzoyl-*ψ*-cumidide** (FRÜHLICH), 1884, A., 1319.
- Dibenzoyldaphnetin** (V. PECHMANN), 1884, A., 1174.
- Dibenzoyldiacetylene** (FISCHER and BÜLOW), 1885, A., 1237.
- Dibenzoyldiisoeugenol** (TIEMANN), 1892, A., 46.
- Dibenzoyldihydroxyanhydroecgonine**, derivatives of (EINHORN and RASOW), 1892, A., 1016.
- Dibenzoyldi-*o*-hydroxystilbene** (HARRIES), 1892, A., 168.
- Dibenzoyldisulphydronaphthalene** (*benzoyldithiomaphthol*) (GROSJEAN), 1890, A., 1306.
- Dibenzoylethane** (CULMANN), 1890, A., 1269.
- Dibenzoylglutazine** (V. PECHMANN), 1888, A., 68.
- Dibenzoyl-*p*-hydroxybenzenylamidoxime** (KRONE), 1891, A., 700.
- Dibenzoylhydroxytolenylamidoxime** (*dibenzoylsalicylbenzylamidoxime*) (SPILKER), 1890, A., 143.

**Dibenzoyl-*o*-hydroxytolenylamidoxime** (*dibenzoyl-*o*-homosalicyl-*yl*amidoxime*) (PASCHEN), 1892, A., 320.

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**Dibenzoylpentanedioxime** (KIPPING and PERKIN), 1889, T., 349.

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**Dibenzoylphloroglucinols**, isomeric (SKRAUP), 1889, A., 1152.

**Dibenzoylpyridine** (RÜGHEIMER), 1892, A., 1365.

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**Dibenzoylresorcinols**, *mono*- and *tri*-nitro- (ERRERA), 1886, A., 50, 51.

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**Dibenzoylstilbenimide** (KLINGEMANN and LAYCOCK), 1891, T., 144.

***αβ*-Dibenzoylstyrene** (*anhydracetophenonebenzil*) (JAPP and BURTON), 1887, T., 429; P. 32; (JAPP and KLINGEMANN), 1889, P., 136, 139; 1890, T., 662.

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**Dibenzylacetic acid** (MICHAEL and PALMER), 1885, A., 987; (BISCHOFF and v. KÜHLBERG), 1890, A., 1135.

**Dibenzylacetoneitrile** (SCHNEIDEWIND), 1888, A., 705.

**Dibenzylacetoacetic acid** (FITTIG and CHRIST), 1892, A., 963.

**Dibenzylacetone and dibenzylacetone-dicarboxylic acid** (DÜNSCHMANN and v. PECHMANN), 1891, A., 674.

**Dibenzylacetoxime** (RATTNER), 1888, A., 704.

**Dibenzylalorsbite** (MEUNIER), 1890, A., 731.

**Dibenzylamarine** and its iodides (CLAUS), 1883, A., 203.

**Dibenzylamidindamine** (MELDOLA and COSTE), 1889, T., 598.

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- Dibenzylamidodisulphonic acid** (SCHMIDT), 1892, A., 476.
- Dibenzylamine and its derivatives** (WALDER), 1886, A., 796; 1887, A., 246.  
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- Dibenzylamine** *o*-dichloro-*p*-dinitro- (WITT), 1892, A., 445.  
*o*-dicyano- (DAY and GABRIEL), 1890, A., 1251.  
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- Dibenzylaniline and its derivatives** (MATZUDAIRA), 1887, A., 812.  
*o*-dichloro-*p*-dinitro- (WITT), 1892, A., 445.
- Dibenzylanthracene hydride and dibenzylanthrone** (HALLGARTEN), 1888, A., 1202.
- Dibenzylarsine trichloride** (MICHAELIS and PAETOW), 1885, A., 526.
- Dibenzylarsinic acid** (MICHAELIS and PAETOW), 1885, A., 527.
- as*-Dibenzylazine** (CURTIUS and THUN), 1891, A., 1357.
- Dibenzylbenzene, *m*-dinitro-** (BECKER), 1883, A., 203.  
*p*-dinitro- (BASLER), 1884, A., 310.
- Dibenzylbromobenzeneazoammonium chloride** (BEHREND and LEUCHS), 1889, A., 502.
- Dibenzylisobutylcarbamide** (HAMMERICH), 1892, A., 1083.
- Dibenzylcarbamide chloride** (HAMMERICH), 1892, A., 1083.
- Dibenzylcarbamide, *p*-dinitro-** (HAFNER), 1889, A., 982.
- Dibenzylcarbinol** (V. BOGDANOWSKA), 1892, A., 851; (NOYES), 1892, A., 1094.
- Dibenzylcarbonylamine** (NOYES), 1892, A., 1093.
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- Dibenzyl-*o*-carboxylic acid.** See Diphenylethane-*o*-carboxylic acid.
- Dibenzylcyanocarbamide argentocyanide** (HAMMERICH), 1892, A., 1084.
- Dibenzyl-di-*o*-carboxylic acid.** See Diphenylethanedio-*o*-carboxylic acid.
- Dibenzyl-diethyl-diamidotriphenylmethane** (FRIEDLÄNDER), 1889, A., 606; (PHILIPS), 1889, A., 1158.
- Dibenzyl-diethylphosphonium chloride** (COLLIE), 1888, T., 724.
- Dibenzyl-dimethylthiocarbamides, *o*- and *p*-** (KRÖBER), 1890, A., 968.
- Dibenzyl-dimethylammonium chloride** (JACKSON and WING), 1887, A., 722.
- Dibenzyl-di-*iso*quinoline** (KRAUSS), 1891, A., 86.
- Dibenzyl-ditolylcarbamide** (HAMMERICH), 1892, A., 1083.
- Dibenzylethylamine** (WALDER), 1887, A., 813; (KRAFT), 1891, A., 51.
- Dibenzylethylphosphine** (COLLIE), 1888, T., 725.
- Dibenzylglycollic acid (*oxytolyllic acid*), products of the reduction and oxidation of** (SPIEGEL), 1884, A., 841.
- Dibenzylglycosine** (JAPP and CLEMINSHAW), 1887, T., 555.
- a*-Dibenzylhomo-*o*-phthalbenzylimide** (PULVERMACHER), 1887, A., 1112.
- a*-Dibenzylhomo-*o*-phthalic anhydride, and-*o*-phthalimide** (PULVERMACHER), 1887, A., 1111.
- Dibenzylhydrazine hydrochloride** (CURTIUS and JAY), 1889, A., 393.
- Dibenzylhydroxylamine** (SCHRAMM), 1884, A., 51; (BEHREND and LEUCHS), 1889, A., 704.  
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- Dibenzylhydroxylamine, nitro-, oxidation of** (BEHREND and KÖNIG), 1892, A., 1456.  
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- Dibenzyl sulphide, platinum compounds** (SÖNDAHL), 1889, A., 368.  
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*mono- and di-sulphides, o-nitro-* (JAHODA), 1890, A., 487, 488.
- Dibenzylidenacetone.** See Distyryl ketone.
- Dibenzylidenediamidodiphenylamine** (MELDOLA and COSTE), 1889, T., 594.
- Dibenzylidene-*p*-diamidodiphenylmethane** (GRAM), 1892, A., 618.
- Dibenzylidene-2:6-dimethylpyridine (*dibenzylidene-2:6-lutidine*)** (SCHUSTER), 1892, A., 1361.
- Dibenzylidenediphenylene** (REULAND), 1890, A., 166.
- ββ*-Dibenzylidenelevulinic acid (*dibenzallelevulinic acid*)** (ERDMANN), 1890, A., 1129.
- Dibenzylidenenitrotolidine** (LOEWENHERZ), 1892, A., 852.
- Dibenzylidenepimelic acid (*dibenzalpinimelic acid*)** (PERKIN and PRENTICE), 1891, T., 850.
- Dibenzylidenepropylenediamine** (STRACHE), 1888, A., 1173.
- Dibenzylidenestilbenediamine** (GROSSMANN), 1889, A., 1191.
- Dibenzylidenedithioamide and dinitro-derivative of** (EPHRAIM), 1891, A., 831.

- Dibenzylidenethylenediamine** (MASON), 1887, A., 493.
- Dibenzylmalonic acid** (PERKIN), 1885, T., 821; (BISCHOFF and SIEBERT), 1887, A., 952; (BISCHOFF and V. KUHLEBERG), 1890, A., 1134.  
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- Dibenzylmethylamine**, *m*-nitro- (BORG-MANN), 1886, A., 56.  
*di*-*o*-nitro- (GABRIEL and JANSEN), 1892, A., 218.
- Dibenzylmethylenediamine** (*methylenedibenzylamine*) (KEMPF), 1890, A., 887.
- Dibenzylnitroquinol** (PELLIZZARI), 1884, A., 438.
- 1:4-Dibenzoyloxybenzene** (COLSON), 1889, A., 1152.
- Dibenzylpentanetetracarboxylic acid** (PERKIN and PRENTICE), 1891, T., 844.
- Dibenzyl-*p*-phenylenediacetonitrile** (RATTNER), 1888, A., 704.
- Dibenzylphosphine** (LETTS and BLAKE), 1890, A., 767.  
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- Dibenzylphosphinic acid** (LETTS and BLAKE), 1890, A., 767.
- Dibenzylpimelic acid** (PERKIN and PRENTICE), 1891, T., 846.
- $\alpha\alpha'$ -Dibenzylpimelic acid**, dissociation constant of (WALKER), 1892, T., 702.
- Dibenzylpyridine** (RÜGHEIMER), 1892, A., 1364.
- Dibenzyl-pyrocatechol, -quinol and -resorcinol** (PELLIZZARI), 1884, A., 437, 438.
- Dibenzylsuccinamide** (WERNER), 1889, T., 631.
- Dibenzylsulphone-methane and -thio-benzylmethane** (LAVES), 1892, A., 612.
- Dibenzylsulphonephenylmethane** (LAVES), 1892, A., 613.
- Dibenzylthiocarbamide**, action of acetic anhydride on (WERNER), 1891, T., 406.  
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- Dibenzylthioxamide** (WALLACH and REINHARDT), 1891, A., 1008.
- Dibornylamine** (WALLACH and GRIE-PENKERL), 1892, A., 1238.  
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- Dibornylthiocarbamide** (WALLACH and GRIE-PENKERL), 1892, A., 1238.
- Dibrassidin** (REIMER and WILL), 1887, A., 233.  
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- $\alpha$ -Dibromhydrin**, preparation of (ASCHAN), 1889, A., 31.  
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- Diisobutenyl**, isomeric change in (FAWORSKY), 1891, A., 1331.  
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- Diisobutyl**, complete chlorination of (HARTMANN), 1891, A., 811.
- Diisobutyl dichloroglycollate** (ANSCHÜTZ), 1890, A., 236.
- Diisobutyl and diisobutyl ethers** (REBOUL), 1889, A., 477.
- Dibutyl ethers** (REBOUL), 1889, A., 366, 477.
- Diisobutylacetylene diisovalerate** (KLINGER and SCHMITZ), 1891, A., 891.
- Diisobutylallylamine** (PAAL and HEMPEL), 1892, A., 31.
- Diisobutylamine**, preparation of (MALBOT), 1887, A., 356.  
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- Diisobutylamine salts** (MALBOT), 1887, A., 461.  
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- Dibutylanilineazylene** (LIPPMANN and FLEISSNER), 1883, A., 55, 185.
- tert.-Dibutylbenzene** (SEŃKOWSKI), 1890, A., 1297.
- Diisobutylbismuthine bromide and hydroxide** (MARQUARDT), 1888, A., 1067.
- Diisobutylcyanamide** (BERG), 1892, A., 1173.
- Diisobutylene**, heat of combustion of (MALBOT), 1890, A., 320.  
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- Diisobutylglyoxaline** (*oxalisobutyliso-amylamine*) (RADZISZEWSKI and SZUL), 1884, A., 986.
- Diisobutylhexinene diketone** (*diisobutyronone*) (BRÜGGEMANN), 1888, A., 1176.
- Diisobutylketone** (LANG), 1885, A., 963.

- Dibutyloctohydrophenanthroline** (SCHIEF and VANNI), 1890, A., 138.
- Diisobutyloxamic acid**, calcium salt of (MALBOT), 1887, A., 357.
- Diisobutyloxamide** (MALBOT), 1887, A., 357.
- Diisobutylpimelic acid** (PERKIN and PRENTICE), 1891, T., 843.
- Diisobutylquinol**, and its chloro-, bromo-, and nitro-derivatives (SCHUBERT), 1883, A., 60.
- Diisobutylsulphone-dimethylmethane and -methane** (STUFFER), 1891, A., 180, 181.
- Dibutyramide**,  $\gamma$ -dithio- (GABRIEL), 1890, A., 1221.
- Dibutyric acid**,  $\alpha$ -thio- (LOVÉN), 1886, A., 333.  
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- Diisobutyric acid**, thio- (LOVÉN), 1886, A., 333.
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- Dicampholylcarbamide** (ERRERA), 1892, A., 1345.
- Dicapronamidinebiuret** (PINNER), 1891, A., 60.
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- Dicarbanilidohydrazobenzene** (GOLDSCHMIDT and ROSELL), 1890, A., 614.
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- Dicarbonyl-group**, condensations of compounds which contain, with aldehydes and ammonia (JAPP), 1883, T., 197.
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- m-Dicarboxybenzyl oxide** (REINGLASS), 1891, A., 1345.
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- Dicarboxyglutaric acid** (*propanetetracarboxylic acid*) (PERKIN), 1886, A., 691; (KLEBER), 1888, A., 1057.
- Dicarboxylic acids**, new synthesis of, from monocarboxylic acids (SEIFERT), 1885, A., 983.
- $\beta$ - $\gamma$ -Dicarboxy- $\gamma$ -valerolactone** (RACH), 1886, A., 1012.
- Dicarvacrylamine** (LLOYD), 1887, A., 721.
- Dicetyl**,  $C_{32}H_{66}$  (*dotricontane*) (LEBEDEFF), 1885, A., 736.  
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- Dichloral phosphine** and its derivatives (DE GIRARD), 1886, A., 684.
- Dichlorhydrin**, action of sodium on (TORNÖE), 1891, A., 1442.  
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- $\beta$ -Dichlorhydrin m-hydroxybenzoate** (GÖTTIG), 1891, A., 1482.
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- Dichloroformberberine** (GAZE), 1891, A., 332.
- Dichroins** (BRUNNER and CHUIT), 1888, A., 363, 1182.
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- Dichrysyl- carbamide and -thiocarbamide** (ABEGG), 1891, A., 730, 731.
- Dicinchonine** (HESSE), 1885, A., 675.
- Diapocinchonine** (JUNGFLEISCH and LÉGER), 1892, A., 1253.
- Dicinene** (HELL and STÜRCKE), 1884, A., 1363.
- Dicinnamic acid**, dithio- (BONDZYŃSKI), 1887, A., 1109.
- Dicinnamoylphenylazimide**, imide of (RUHEMANN), 1892, T., 283.
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- Dicinnamoyltolylenediamine** (BISTRZYCKI and ULFFERS), 1890, A., 1115.
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- Dicoumarin** (FITTIG), 1886, A., 47; 1890, A., 584.  
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- Dicresol** (HELLE), 1892, A., 1467.  
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- o-Dicresol** (GERBER), 1888, A., 484.  
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- Dieresoldicarboxylic acid** (DENINGER), 1888, A., 838.
- Dieresoldisulphonic acid** (HELLE), 1892, A., 1467.
- Diisocrotyl** (*octinene*), and its derivatives (PRZYBYTEK), 1889, A., 362.
- Di- $\psi$ -cumenol** (*hexamethyldiphenol*) di-bromo- (AUWERS), 1885, A., 381; 1886, A., 144.
- Dicumenylcarbamide** (GOLDSCHMIDT and GESSNER), 1889, A., 774.
- Dicumenyloxamide** (GOLDSCHMIDT and GESSNER), 1889, A., 773.
- Di- $\psi$ -amidine** and its derivatives (AUWERS), 1886, A., 144.
- Dicuminalacetone**. See Dipropyl distyryl ketone.
- Di- $\psi$ -cumyl ethylene diketone** (CLAUS and SCHLARB), 1887, A., 827.
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- Di- $\psi$ -cumylcarbamide** (ENGEL), 1885, A., 1216; (CONRAD and LIMPACH), 1888, A., 504.
- Di- $\psi$ -cumylcarbamide** (GATTERMANN and CANTZLER), 1892, A., 832.
- Di- $\psi$ -cumyldimethylmethane** (KRAEMER and SPILKER), 1891, A., 1463.
- Di- $\psi$ -cumylmethenylamidine** (SENIER), 1885, T., 768.
- Di- $\psi$ -cumyltetrazine** (RUHEMANN), 1890, T., 56.
- Di- $\psi$ -cumylthiocarbamide** (ENGEL), 1885, A., 1216.
- Dicyandiamide** (BAMBERGER), 1883, A., 907, 1090; (DUVILLIER), 1884, A., 613; (BAMBERGER and SEEBERGER), 1891, A., 838.  
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- Dicyandiamidine**, preparation of (SMOLKA and FRIEDREICH), 1889, A., 951.  
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- Dicyanic acid**, amido- (WUNDERLICH), 1886, A., 435.
- Di-*m-iso*-cymylcarbamide** and **dicymylthiocarbamide** (KELBE and WARTH), 1884, A., 47.
- Didehydrotrichlorodihydroxypiperazine** (BÉHAL and CHOAY), 1890, A., 231.
- Di-*p*-dimethylbenzoin** (STIERLIN), 1889, A., 513.
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- Didymium**, distribution of (COSSA), 1884, A., 262.  
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- Didymium salts**, molecular refraction and dispersion of, in solution (GLADSTONE), 1891, T., 595.  
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- Didymium molybdates** (COSSA), 1884, A., 821; 1886, A., 981.  
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- Didymium**, estimation of (SMITH), 1884, A., 111.  
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- Dierucin** (REIMER and WILL), 1887, A., 233.  
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- Diet**, amount of acid in the stomach in an amylaceous (ROSENHEIM), 1888, A., 617.  
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- Diethenyltetramidobenzenes** (NIETZKI and HAGENBACH), 1887, A., 476, 477; (NIETZKI and SCHMIDT), 1889, A., 974.
- Diethenyltetramidoditolyl**, dinitro- (BANKIEWICZ), 1888, A., 1184.
- Diethoxyacetone** (GRIMAUZ and LE-FÈVRE), 1889, A., 235.

- m*-Diethoxyacetophenone (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.
- Diethoxydiamidodiphenylamine (NIETZKI and KAUFMANN), 1892, A., 314.
- 1:2-Diethoxyanthraquinone (*diethyl alizarin ether*) (HABERMANN), 1884, A., 1187.
- 1:4-Diethoxyanthraquinone (*diethyl quinizarin ether*) (LIEBERMANN and JELLINEK), 1888, A., 716.
- 1:2-Diethoxybenzene (*pyrocatechol diethyl ether*) (HERZIG and ZEISEL), 1889, A., 967.
- 1:3-Diethoxybenzene (*resorcinol diethyl ether*), preparation of (HERZIG and ZEISEL), 1890, A., 1404.  
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- 1:3-Diethoxybenzene, amido- (WILL and PUKALL), 1887, A., 661.  
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- Diethoxycoumarilic acid (WILL), 1884, A., 69.
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- Diethoxydimethyldiamidophenazine (NIETZKI and KAUFMANN), 1892, A., 315.
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- Diethoxydinaphthyls,  $\alpha$ - and  $\beta$ - (*dinaphthyl diethyl ethers*) (OSTERMAYER and ROSENHEK), 1885, A., 171.
- Diethoxydiphenylcarbamide (GATTERMANN and CANTZLER), 1892, A., 833.
- Diethoxydiphenyldiketopiperazine (BISCHOFF and NASTVOGEL), 1890, A., 1161.
- p*-Diethoxydiphenyl- $\alpha$ -y-diketopiperazine (BISCHOFF and NASTVOGEL), 1889, A., 1012.
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- p*-Diethoxydiphenylpiperazine (BISCHOFF), 1889, A., 1011.  
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- Diethoxyethylidene oxide (LAATSCH), 1883, A., 788.
- 1:3:5-Diethoxyhydroxybenzene (*phloroglucinol diethyl ether*) (WILL and ALBRECHT), 1884, A., 1336.
- Diethoxyhydroxycaffeine (FISCHER), 1833, A., 355; (FISCHER and REESE), 1884, A., 466.
- Diethoxyhydroxyethyltheobromine (FISCHER), 1883, A., 357.
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- $\alpha\alpha'$ -Diethylacetonedicarboxylic acid (DÜNSCHMANN and v. PECHMANN), 1891, A., 674.
- Diethylacetoneitrile (FREUND and HERRMANN), 1890, A., 474.
- Diethylacetophenone (PERKIN), 1884, T., 185; (v. BAEYER and PERKIN), 1884, A., 63.
- Diethylacetothienone and its oxime (MUHLERT), 1886, A., 535.
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- p*-Diethylamidobenzaldehyde (BOESSNECK), 1886, A., 458.
- Diethyl- $\alpha$ -amidobutyric acid (DUVILLIER), 1885, A., 750.
- Diethylamidocinnamic acid (FISCHER and KUZEL), 1884, A., 440.
- Diethylamido-*n*-hexoic acid (DUVILLIER), 1892, A., 294.
- Diethylamidohydroxyphenyltrichloroethane hydrochloride (BOESSNECK), 1886, A., 458.
- Diethylamidophenylarsine oxide (MICHAELIS and RABINERSON), 1892, A., 1321.
- Diethylamidophenylphosphenyl chloride (MICHAELIS and SCHENK), 1891, A., 436.
- Diethyl- $\alpha$ -amidopropionic acid (DUVILLIER), 1889, A., 1139.
- Diethylamidiquinoxazone (MÖHLAU), 1892, A., 888.
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- Diethylisoamylphosphine (COLLIE), 1888, T., 722.
- Diethylamylthiocarbamide (NOAH), 1890, A., 1241.
- Diethylaniline, preparation of (REINHARDT and STAEDL), 1883, A., 578.  
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- Diethylaniline, *m*-nitro- (GROLL), 1886, A., 347.  
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- Diethylanilineazylene** (LIPPMANN and FLEISSNER), 1883, A., 55, 185.  
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- Diethylanthrone** (GOLDMANN), 1888, A., 715.
- Diethylbenzamide**, nitro- (VAN ROMBURGH), 1886, A., 546.
- m*-**Diethylbenzene** and its derivatives (VOSWINKEL), 1889, A., 38.  
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- o*-**Diethylbenzene** (VOSWINKEL), 1889, A., 388.
- p*-**Diethylbenzene** and its derivatives (ASCHENBRANDT), 1883, A., 318; (VOSWINKEL), 1889, A., 493.
- Diethylbenzenes**, chlorinated (ISTRATI), 1886, A., 231, 343.
- p*-**Diethylbenzenesulphonamide** (VOSWINKEL), 1889, A., 493.
- o*-**Diethylbenzenesulphonic acid**, derivatives of (VOSWINKEL), 1889, A., 388.
- p*-**Diethylbenzenesulphonic acid** and its salts (ASCHENBRANDT), 1883, A., 318.  
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- Diethylbenzidinephthalic acid** (SCHIFF and VANNI), 1890, A., 1298.
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- Diethylbenzoylacetic acid** (PERKIN), 1884, T., 182.
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- Diethylbismuthine bromide** (MARQUARDT), 1887, A., 803.
- Diethylbromaniline** (CLAUS and HOWITZ), 1884, A., 1006.
- Diethyl-bromodinitroresorcinol** and *-tribromonitroresorcinol* (JACKSON and WARREN), 1891, A., 1025, 1026.
- Diethylbromotoluene** (DAFERT), 1883, A., 1094.
- Diethylisobutylidenedisulphone** (FROMM), 1890, A., 56.
- Diethylcamphor** (BRÜHL), 1892, A., 200.
- u*-**Diethylcarbamide** (VAN DER ZANDE), 1889, A., 962.
- Diethyl- and isodiethyl-carbobenzonic acids** (ANSCHÜTZ and BERNIS), 1891, A., 913.
- Diethyltrichloracetamide** (CLOËZ), 1887, A., 1098.
- Diethylcurcumin dihydride** (JACKSON and MENKE), 1883, A., 481.
- Diethylcyanine iodide** (HOOGWERFF and VAN DORP), 1885, A., 674.
- Diethyleyanpropine** (WACHE), 1889, A., 684.
- Diethyleyanuric acid** and its salts (PONOMAREFF), 1886, A., 216.
- Diethylcephnetilic acid** (WILL and JUNG), 1884, A., 1042; (JUNG), 1886, A., 558.
- Diethylcephnetone** (JUNG), 1886, A., 558.
- Diethyldibenzoylpropane** (BÉHAL and AUGER), 1890, A., 493.
- Diethyldiguanide** (EMICH), 1891, A., 1180.
- Diethyldimethylenetrissulphone** (BAUMANN), 1890, A., 1093.
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- Diethyldisulphoneacetone** (OTTO and TRÖGER), 1891, A., 665.
- Diethylene series** of hydrocarbons (BÉHAL), 1889, A., 839.
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- Diethylenediamine cobalt chloride**, chloro- (JÖRGENSEN), 1889, A., 352.
- $\beta$ -**Diethylethylamine** (FREUND and HERRMANN), 1890, A., 474.

- Diethylethylenedisulphone** (OTTO and CASANOVA), 1888, A., 255.
- Diethylthylene- $\psi$ -thiocarbamide** (NOAH), 1890, A., 1242.
- Diethylformamide**, platinochloride of (PINNER), 1883, A., 1089.
- u*-Diethylformamidine** (*formimido-diethylamide*), hydrochloride (PINNER), 1884, A., 724.
- Diethylglutaramidine platinochloride** (PINNER), 1891, A., 62.
- Diethylglutaric acid** (GUTHZEIT and DRESSEL), 1890, A., 878.
- Diethylglycerolphosphoric acids**, two isomeric (HUNDESHAGEN), 1884, A., 283.
- p*-Diethylglyoxaline** (*oxaethylpropyl-ine*), synthesis of (RADZISZEWSKI), 1883, A., 729.
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- $\alpha$ -Diethylhomo-*o*-phthalic acid and anhydride** (PULVERMACHER), 1887, A., 1111.
- $\alpha$ -Diethylhomo-*o*-phthalimide** (PULVERMACHER), 1887, A., 1111.
- Diethylhydroanthracene** (GOLDMANN), 1888, A., 715.
- Diethylhydroxypropylamine platinochloride** (LIEBERMANN and PAAL), 1883, A., 910.
- Diethylic allophanyltartrate** (TRAUBE), 1889, A., 394.
- amarinedicarboxylate** (BAHRMANN), 1883, A., 799.
- barium phosphate** (LOSSEN and KÖHLER), 1891, A., 1014.
- camphorate** (FRIEDEL), 1892, A., 500; (BRÜHL), 1892, A., 1102.
- isocamphorate** (FRIEDEL), 1892, A., 501.
- carbopyrotritarate** (KNORR), 1885, A., 247; (KNORR and CAVALLLO), 1889, A., 384.
- p*-dichloro- $\alpha$ -dimethylbenzo-*p*-difurfuran- $\beta$ -dicarboxylate** (IKUTA), 1892, A., 609.
- dichloroglycollate** (ANSCHÜTZ), 1886, A., 1011.
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- dimethoxydimethylmalonate** (KLEBER), 1888, A., 1057.
- dimethylfurfurandicarboxylate** (KNORR), 1885, A., 248.
- dimethylsuccinate** (BARNSTEIN), 1888, A., 135.
- Diethylic diphenylazimethylenedicarboxylate** (CURTIUS and LANG), 1892, A., 453.
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- furfuralmalonate** (MARCKWALD), 1888, A., 678.
- furfurinedicarboxylate** (BAHRMANN), 1883, A., 800.
- furfuryl-2:4-dimethylpyridinedicarboxylate and its salts** (HEIBER), 1892, A., 1362.
- hydrofurfuryl-2:4-dimethylpyridine-dicarboxylate** (SCHIFF and PULITI), 1883, A., 1151; (HEIBER), 1892, A., 1362.
- hydrogen carboxybenzylmalonate** (WISLICENUS), 1888, A., 150.
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- hydrophenyldimethylpyridinedicarboxylate** (SCHIFF and PULITI), 1883, A., 1151.
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- methylmethronate\*** (DIETZEL), 1889, A., 594.
- nitrilosuccinate** (PIUTTI), 1891, A., 175.
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- phenyl-2:4-dimethylpyridinedicarboxylate** (SCHIFF and PULITI), 1883, A., 1151.
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- quinone-*p*-difurfuran- $\alpha$ -dimethyl- $\beta$ -dicarboxylate hydrochloride** (IKUTA), 1892, A., 610.
- quinonehydrodicarboxylate and formula of** (WEDEL), 1884, A., 834.
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- succinosuccinate, formula of** (WEDEL), 1884, A., 835.
- sulphacetate** (MAUZELIUS), 1888, A., 821; (FRANCHIMONT), 1888, A., 1175.
- $\alpha$ -sulphaminephthalate** (MOULTON), 1891, A., 1063.

- Diethylic sulphoxide, *di*amido-, picrate of (CROSS and BEVAN), 1892, A., 130.  
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- Diethylidene-cinchonine and -cinchoxine (CLAUS), 1892, A., 1252.
- Diethylidenic tetrasulphide (FASBENDER), 1887, A., 463.
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- Diethyl-*m*-nitraniline (NÖLTING and STRICKER), 1886, A., 544.
- Diethylloxetone and diethylloxetone-carboxylic acid (FITTIG and DUBOIS), 1890, A., 869.
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- m*-Diethylphenol (VOSWINKEL), 1889, A., 39.
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- Diethyl-*m*-phenylenediamine (GROLL), 1886, A., 347.
- Diethyl-*p*-phenylenediamine (LIPPMANN and FLEISSNER), 1883, A., 869, 1100.
- disulphide* (BERNTSEN), 1889, A., 777.
- Diethylphosphorous acid (THORPE and NORTH), 1890, T., 634; P., 75.
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- Diethylpiperazine (SCHMIDT and WICHMANN), 1892, A., 212.
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- Diethylpropargylamine hydriodide (PAAL and HEUPEL), 1892, A., 30.
- Diethylisopropylidene *disulphide* (BAUMANN), 1887, A., 126.
- Diethylpropylcarbinol (SOKOLOFF), 1888, A., 1170.
- Diethylpropylphosphine (COLLIE), 1888, T., 721.
- Diethylpropylthiocarbamide picrate (NOAH), 1890, A., 1241.
- $\alpha\gamma$ -Diethylpyridine (LADENBURG), 1886, A., 159; 1887, A., 60.
- 1-Diethylpyrrole (CIAMICIAN and ZANETTI), 1889, A., 728; (ZANETTI), 1890, A., 908.
- Diethylquinol. See 1:4-Diethoxybenzene.
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- as*-Diethylsuccinic acid (BISCHOFF and MINTZ), 1890, A., 744.
- s*-Diethylsuccinic acids (HJELT), 1888, A., 254; (BISCHOFF and HJELT), 1888, A., 1057; (HELL), 1889, A., 377; (BITSCHICHIN and ZELINSKY), 1890, A., 740; (BISCHOFF and MINTZ), 1890, A., 743.  
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- Diethylsulphamic acid and its barium salt (BEILSTEIN and WIEGAND), 1883, A., 971.
- Diethylsulphone, *di*amido- (GABRIEL), 1892, A., 131.
- Diethylsulphonechlorodimethylmethane (AUTENRIETH), 1891, A., 568.
- Diethylsulphonediethylmethane (BAUMANN and KAST), 1889, A., 1233; (FROMM), 1890, A., 56.
- Diethylsulphonediethylmethane (*isopropylidenediethylsulphone*; *sulphonal*) (BAUMANN), 1887, A., 123; (FROMM), 1890, A., 56; (STUFFER), 1891, A., 180.  
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- Diethylsulphonediiodomethane (FROMM), 1890, A., 56.
- Diethylsulphonemethane (BAUMANN), 1887, A., 124; (FROMM), 1890, A., 56.  
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- Diethylsulphonemethylpropylmethane (BAUMANN), 1887, A., 123.
- Diethylsulphonephenylsulphonemethane and its chloro- and bromo-derivatives (LAVES), 1892, A., 613.
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- Diformylbenzidine** (STERN), 1884, A., 1015.
- Diformyl-*p*-dianilidobenzene** (BRUNCK), 1892, A., 1451.
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- Difurfuralacetone** (CLAISEN and PONDER), 1884, A., 1167.
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- Difurfurylthiocarbamide** (DEUTZMANN), 1892, A., 43.
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- Difurfuryl-quinoxaline**, -naphthaquinoxaline and -toluquinoxaline (FISCHER), 1892, A., 1475.
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- Digitic acid** (KILIANI), 1891, A., 577.
- Digitin**, estimation and separation of, from digitalin and digitalein (PALM), 1884, A., 507.
- Digitogenic acid** (KILIANI), 1891, A., 577.
- Digitogenin** (KILIANI), 1890, A., 996; 1891, A., 576.  
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- Digitonin** (KILIANI), 1892, A., 501.  
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- Digluco-*o*-phenylenediamine** (GRIESS and HARROW), 1887, A., 930.
- Diglycerylmethylal** (HÖLAND), 1887, A., 905.
- Diglycidylpyrocatechol** (LINDEMANN), 1891, A., 1199.
- Diglycol compounds**, thio- (MEYER), 1887, A., 228.
- Diglycollanilic acid** (ANSCHÜTZ), 1891, A., 177.
- Diglycollic acid**, thio- (LOVÉN), 1885, A., 241.
- Diglycollic anhydride** (ANSCHÜTZ), 1891, A., 177.
- Diglycolylmaleic acid** (PUM), 1888, A., 1059.
- Diguanide** (EMICH), 1883, A., 973; 1891, A., 1180.
- Diguanide**, preparation of (SMOLKA and FRIEDREICH), 1888, A., 830.  
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- Diheptadecylcarbamide** (TURPIN), 1888, A., 1175.
- Diheptinene**, a (TILDEN), 1884, T., 419.
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- Dihexamethylenamine methyleniodide** (WOHL), 1886, A., 863.
- Dihexinene** (RENARD), 1887, A., 566.
- "Dihexolactone"** and **"dihexonic acid"** (FITTIG and DUBOIS), 1890, A., 868.
- Dihexyl ketone** (KIPPING), 1890, T., 533.  
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- Dihexylcarbinol** (KIPPING), 1890, T., 536.
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- Dihexylthiocarbamide** (FRENTZEL), 1883, A., 1075.
- o*-Dihomobenzenylazoxime** (STIEGLITZ), 1890, A., 256.
- p*-Dihomobenzenylazoxime** (SCHUBART), 1890, A., 48.
- Dihydrazidodiphenyldisulphonic acid** (LIMPRICHT), 1891, A., 930.
- Dihydrazidoditolylsulphonic acid** (HELLE), 1892, A., 1467.
- Dihydrazidopimelic anhydride** (VOLHARD), 1892, A., 435.
- Dihydrazonepyruvic acid hydrazide** (MESSINGER and ENGELS), 1889, A., 36.
- Dihydrazophenine** (FISCHER and HEPP), 1887, A., 1106.
- Dihydrazopimelic anhydride** (VOLHARD), 1892, A., 435.
- Dihydriodocinchonine** (PUM), 1892, A., 514; (LIPPMANN and FLEISSNER), 1892, A., 639.
- Dihydriodo-quinidine** and **-apoquinidine** (SCHUBERT and SKRAUP), 1892, A., 640.
- Dihydroacenaphthene dibromide** (BAMBERGER and LODTER), 1888, A., 604.
- Dihydroanthracene**, behaviour of, with carbonyl chloride (BEHLA), 1887, A., 594.
- Dihydroanthracenecarboxylic acid** (BÖRNSTEIN), 1884, A., 330.
- $\alpha$ -Dihydroanthracenecarboxylic acid** (GRAEBE and JUILLARD), 1888, A., 156.

- Dihydromesoanthramine** (GOLDMANN), 1890, A., 1426.
- Dihydroepiole** (CIAMICIAN and SILBER), 1890, A., 1294.
- Dihydro-arecaidine** and **-arecoline** (JAHNS), 1892, A., 739.
- Dihydrobenzaldehyde** and **phenylhydrazone** of (EICHENGRÜN and EINHORN), 1891, A., 67.
- Dihydrobenzamide** (HUTCHINSON), 1891, A., 561.
- Dihydrobenzene**, synthesis of (v. BAeyer), 1892, A., 1074.
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- Dihydrobenzoxime** (EICHENGRÜN and EINHORN), 1891, A., 67.
- $\Delta^{3,5}$ -Dihydrobenzylidimethylamine** (MERLING), 1892, A., 358.
- Dihydrocamphene**, derivatives of (TANRET), 1887, A., 676.
- Dihydrocarveol** and **dihydrocarvylamine** (WALLACH), 1892, A., 499.
- Dihydrocinchonine** (COMSTOCK and KOENIGS), 1884, A., 1384.
- Dihydrocinene** (HELL and RITTER), 1885, A., 172.
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- $\beta$ -Dihydrocollidine**. See 4-Methyl-3-ethyldihydropyridine.
- Dihydrocoumaroxime** (TIEMANN), 1886, A., 880.
- Dihydrodiphenyl** (BAMBERGER and LODTER), 1888, A., 604.
- di*bromide** and its **bromo-derivative** (BAMBERGER and LODTER), 1888, A., 604.
- bromo-** (BAMBERGER and LODTER), 1888, A., 604.
- "Dihydrodiphenyldihydroxyantetrazine"** (PINNER), 1890, A., 70.
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- Dihydrofurfuran** (HENNINGER), 1884, A., 897.
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- Dihydroindoxyl**, **amido-**, derivatives of (BURMEISTER and MICHAELIS), 1891, A., 1068.
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- Dihydromeconic acid**, **chloro-** (HILSEBEIN), 1885, A., 1203.
- Dihydromethylfurfuran** (LIPP), 1889, A., 843.
- Dihydromethylquinoxaline**, derivatives of (LEUCKART and HERMANN), 1887, A., 383.
- Dihydromethylstilbazole** (BACHÉR), 1889, A., 162.
- Dihydronaphthalene** (BAMBERGER and LODTER), 1887, A., 719.
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- Dihydronaphthalenedicarboxylic acid** (ANSELM), 1889, A., 717.
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- Dihydrophenanthridine** and its derivatives (PICTET and ANKERSMIT), 1892, A., 197, 838.
- Dihydrophthalic acid** (v. BAeyer), 1890, A., 1278.
- trans* $\Delta^{3,5}$ -Dihydrophthalic acid** (v. BAeyer), 1892, A., 1214.
- Dihydrophthalic acid *di*bromide** and **dihydrobromide** (v. BAeyer), 1890, A., 1278.
- Dihydrophthalic acids**,  **$\Delta^{1,4}$ - and  $\Delta^{2,4}$ -** (v. BAeyer), 1892, A., 1216.
- Dihydrophthalic acids**,  **$\Delta^{4,6}$ - and *cis*  $\Delta^{3,5}$ -** (v. BAeyer), 1892, A., 1215.
- "Dihydropyranilpyroic acid"** and **"lactone"** of (REISSERT), 1888, A., 696.
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- Dihydroquinazolines** (PAAL and KRECKE), 1890, A., 1443; (GABRIEL and JANSSEN), 1892, A., 219.
- Dihydro-santinic** (***dimethyldihydronaphthylpropionic***) and **-isosantinic acids** (GUCCI and GRASSI-CRISTALDI), 1892, A., 871.
- Dihydroshikimic acid** (EIJMANN), 1891, A., 919.
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- Dihydro- $\alpha$ -stilbazole** (BAURATH), 1888, A., 608.
- Dihydrostrychnine** (LOEBISCH and SCHOOP), 1886, A., 815.
- Dihydroterephthalic acid** (v. BAeyer), 1887, A., 371; 1888, A., 1072.
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- $\Delta^{1,5}$ -Dihydroterephthalic acid dibromide (v. BAEYER and HERB), 1890, A., 1131.
- Dihydroterephthalic acid, nitrile of (v. BAEYER), 1892, A., 834.
- p*-dichloro- (LEVY and ANDREOCCHI), 1888, A., 840, 1091.
- p*-dichloronitro- (LEVY and ANDREOCCHI), 1888, A., 1091.
- Dihydroterephthalic acids, isomeric, (v. BAEYER), 1889, A., 1176.
- Dihydroterephthalic acids,  $\Delta^{1,4}$  and  $\Delta^{1,5}$ , thermochemistry of (STOHMANN and KLEBER), 1891, A., 376.
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- o*-Dihydrotoluic acid, and its amide (HUTCHINSON), 1891, A., 562.
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- Dihydroxindole (BISCHOFF), 1883, A., 919.
- 4:2:1-Dihydroxyacetophenone (*resacetophenone*) (v. PECHMANN and DUISBERG), 1884, A., 66; (MICHAEL and PALMER), 1886, A., 239.
- Dihydroxyacridine (ELIASBERG and FRIEDLÄNDER), 1892, A., 1108.
- Dihydroxyaldehydes, aromatic, nitrogenous derivatives of (MARCUS), 1892, A., 317.
- Dihydroxyalizarin-blue (SCHMIDT and GATTERMANN), 1891, A., 1382.
- Dihydroxyamidoanthraquinonesulphonic acid (LIFSCHÜTZ), 1884, A., 1189.
- Dihydroxyisocamylamine (RADZISZEWSKI and SCHRAMM), 1884, A., 1190.
- Dihydroxyisocamylphosphinic acid (VILE), 1889, A., 1135.
- Dihydroxyamylpiperidine aurochloride (MARINO-ZUCO), 1892, A., 86.
- Dihydroxyanhydroecgonine (EINHORN and RASSOW), 1892, A., 1015.
- Dihydroxyanisole, dinitro- (NIETZKI and KURTENACKER), 1892, A., 596.
- Dihydroxyanthracene (*flavol*), from  $\alpha$ -anthraquinonedisulphonic acid (SCHÜLER), 1883, A., 74.
- o*-Dihydroxyanthracoumarin (v. KOSTANECKI), 1888, A., 292.
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- m*-Dihydroxyanthraquinone (*xanthopurpurin*), synthesis of (NOAH), 1886, A., 475.
- 1:4-Dihydroxyanthraquinone (*quinizarin*) (LIEBERMANN), 1888, A., 716.
- 1:4'-Dihydroxyanthraquinone (*anthra-rufin*) (ROEMER), 1883, A., 737.
- 2:3-Dihydroxyanthraquinone (*hystazarin*) and its compounds (SCHOELLER), 1888, A., 1203; 1889, A., 719.
- Dihydroxyaurindicarboxylic acid (CARO), 1892, A., 1469.
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- iso*Dihydroxybehenic acid (GRÜSSNER and HAZURA), 1889, A., 956.
- 2:4-Dihydroxybenzaldoxime ( $\beta$ -*resorcyldaldoxime*) (MARCUS), 1892, A., 317.
- Dihydroxybenzamidopyrrolone (RÜGHEIMER), 1889, A., 1211.
- 2:4-Dihydroxybenzdialdoxime ( $\beta$ -*resorcyldialdoxime*) (MARCUS), 1892, A., 317.
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- 1:3-Dihydroxybenzene. See Resorcinol.
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- Dihydroxybenzenes, action of dichloro-ether on (WISLICENUS and SIEGFRIED), 1888, A., 374.
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- 2:4-Dihydroxybenzenylamidoxime ( $\beta$ -*resorcenylamidoxime*) (MARCUS), 1892, A., 317.
- Dihydroxybenzodiphenyldipyrzalone (BÖNIGER), 1889, A., 879.
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- 2:4-Dihydroxybenzoic acid ( $\beta$ -*resorcylic acid*), thermochemistry of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.
- Dihydroxybenzoic acid, di- and tri-chloro- (ZINCKE and FUCHS), 1892, A., 1461.
- Dihydroxybenzophenone (DALE and SCHORLEMMER) 1883, T., 187.
- o*-Dihydroxybenzophenone and its derivatives (GRAEBE and FEER), 1887, A., 152.
- o*-*p*-Dihydroxybenzophenone (*salicylphenol*), and its derivatives (MICHAEL), 1884, A., 311.
- p*-Dihydroxybenzophenone (KLINGER and STANDKE), 1891, A., 900.
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- Dihydroxybenzophenones**,  $\alpha$ - and  $\beta$ -, and their compounds (STAEDEL), 1883, A., 991.
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- Di-*p*-hydroxybenzoyl-*p*-hydroxybenzoic acid** (KLEPL), 1884, A., 447.
- Dihydroxybenzoylphosphinic acid** (VILLE), 1890, A., 619.
- Dihydroxybenzylenephosphinic acid** (VILLE), 1889, A., 141.
- o*-Dihydroxybenzylidenediphenylene** (REULAND), 1890, A., 166.
- Di-*o*-hydroxybenzylidenethylenediamine** (MASON), 1887, A., 493.
- Dihydroxybutane**, *mono*- and *di*-chloro- (ZIKES), 1885, A., 1046.
- Dihydroxybutanedisulphonic acid** (PRZYBYTEK), 1888, A., 245.
- $\alpha\beta$ -Dihydroxybutyric acid** (*propylene-glycolcarboxylic acid*) (KOLBE), 1883, A., 574; (MELIKOFF), 1884, A., 1301.
- $\beta\gamma$ -Dihydroxybutyric acid** (FITTIG), 1892, A., 957.
- iso*-Dihydroxybutyric acid** (?  $\beta\gamma$ -*dihydroxybutyric acid*) (FITTIG and KOCHS), 1892, A., 958.
- 3':4'-Dihydroxycarbostryl** (v. BAEYER and HOMOLKA), 1884, A., 79.
- Dihydroxy-*o*-carboxyphenylpropionic acid**, lactone of (ZINCKE), 1892, A., 720.
- Dihydroxychloral phosphine** (DE GIRARD), 1884, A., 1119.
- Dihydroxyperchloromethylcyanidine** (TSCHERVEN-IWANOFF), 1892, A., 1291.
- Dihydroxycinchonic acid** (*dihydroxyquinoline-4'-carboxylic acid*) (GOLDSCHMIEDT), 1888, A., 302.
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- o*-Dihydroxy-compounds**, reagent for (STAHL), 1892, A., 1133.
- Dihydroxycoumarin** (TIEMANN and WILL), 1883, A., 200.
- exo*-Dihydroxy- $\psi$ -cumene** (HJELT and GADD), 1886, A., 615.
- Dihydroxydibenzylacetic acid** (PERKIN and STENHOUSE), 1891, T., 1002; P. 43.
- o*-Dihydroxydibenzylamine** (EMMERICH), 1888, A., 50.
- Dihydroxydiethylmethylamine** (KNORR), 1889, A., 1218.
- Dihydroxydiethoxybenzene** (NIETZKI and RECHBERG), 1890, A., 968.
- 2':4'-Dihydroxy-3':4'-dihydroquinoline** (*hydroxyhydrocarbostryl*) (EINHORN), 1884, A., 1338.
- 2':4'-Dihydroxy-3':4'-dihydroquinoline** (*hydroxyhydrocarbostryl*), 3-chloro- (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1100.
- Dihydroxydihydroquinolinelactone** (LIEBERMANN and KLEEMANN), 1887, A., 48.
- Dihydroxydiketo-pentamethylene and -pentamethylenecarboxylic acid** (HANTZSCH), 1888, A., 132.
- Dihydroxydiketotetrahydronaphthalene** (ZINCKE), 1892, A., 859.
- Dihydroxydimethoxybenzene** (WILL), 1888, A., 458.
- Dihydroxydimethylanthraquinones**, isomeric (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 1240.
- Dihydroxydimethylbenzophenone** (SCHROETER), 1890, A., 899.
- Dihydroxydimethylcinnamic acids** (*dimethylumbelllic acids*) (WILL), 1884, A., 68; (WILL and BECK), 1886, A., 880.
- Dihydroxydimethyldiphenylmethane** (DIANIN), 1889, A., 1187.
- Dihydroxydimethyldiquinoxaline** (NIETZKI and MÜLLER), 1889, A., 605.
- Dihydroxydimethylglutaric acid** (AUWERS and JACKSON), 1890, A., 1099; (ZELINSKY), 1892, A., 437.
- lactone and dilactone of (ZELINSKY), 1892, A., 436, 437.
- Dihydroxydimethylglutaric acids** stereoisomerism of (ZELINSKY), 1892 A., 436.
- Dihydroxydimethylheptamethylene** (KIPPING and PERKIN), 1889, P., 145; 1891, T., 217.
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- Dihydroxydimethylpurin** (FISCHER), 1884, A., 997.
- Dihydroxydimethyltriphenylmethane** (SCHROETER), 1890, A., 898.
- Dihydroxydinaphthyl disulphide** (LANGE), 1888, A., 375.
- Dihydroxydinaphthylphenylmethane** (DOEBNER), 1890, A., 902.
- Dihydroxydiphenylamine** (SEYEWITZ), 1890, A., 369.

- Dihydroxydiphenylamine**, dibromo- (MÖHLAU), 1884, A., 594.
- o*-p-Dihydroxydiphenylcarbinol** (MICHAEL), 1884, A., 311.
- p*-Dihydroxydiphenyltrichlorethane**, di- and tetra-nitro- (ELBS and HOERMANN), 1889, A., 998.
- Dihydroxydiphenyldibenzylmethane** (V. BOGDANOWSKA), 1892, A., 851.
- Dihydroxydiphenyldimethyldiazobenzophenylmethane** (MAZZARA), 1885, A., 904.
- Dihydroxydiphenylic mono- and disulphides**. See Hydroxyphenylic mono- and di-sulphides.
- Dihydroxydiphenylic sulphoxide** (SCHALL and UHL), 1892, A., 1077.
- Dihydroxydiphenylpentane** (DIANIN), 1889, A., 1187.
- Dihydroxydipropyldiphenylcarbamidedicarboxylic acid** (WIDMAN), 1884, A., 1023.
- $\beta$ -Dihydroxydiquinoline** (ROSER), 1884, A., 1372; (WEIDEL and GLÄSER), 1886, A., 950.
- Dihydroxydiquinoyl**. See Rhodizonic acid.
- Dihydroxydurylic acid** (NEF), 1886, A., 241; 1887, A., 255; 1888, T., 435.
- "Dihydroxyethenylphenylenediamine"** (ASCHAN), 1886, A., 147.
- 3-Dihydroxy-2-ethoxyanthraquinone** from anthragallol (LIEBERMANN and JELLINEK), 1888, A., 716.
- p*-Dihydroxyethoxyquinone**, chloro- (KEHRMANN), 1891, A., 904.
- m*-Dihydroxyethoxyquinoxaline** (AUTENRIETH and HINSBERG), 1892, A., 160.
- p*-Dihydroxyethoxyquinoxaline** (AUTENRIETH and HINSBERG), 1892, A., 734.
- Dihydroxyethylaniiline** (KNORR), 1889, A., 1219.
- 3:4-Dihydroxy-1-ethylbenzene** (SEMPOTOWSKI), 1890, A., 55.
- Dihydroxyethylbenzene** (*styrolene alcohol*), hydrocarbon ( $C_{16}H_{12}$ ) from (ZINCKE and BREUER), 1885, A., 269; (ZINCKE), 1887, A., 959.
- Dihydroxyethylpyridinecarboxylic acid** (*ethylcomenamic acid*) (MENNEL), 1885, A., 1203.
- 2':4'-Dihydroxy-3'-ethylquinoline** (RÜGHEIMER and SCHRAMM), 1888, A., 502.
- Dihydroxyfluoran** (MEYER and HOFFMEYER), 1892, A., 970.
- Dihydroxyglutaric acids**,  $\alpha\gamma$ - and  $\beta\gamma$ - (KILIANI), 1886, A., 48.
- cis*trans-*p*-Dihydroxyhexamethylene** (V. BAEYER), 1892, A., 833.
- Dihydroxyhexane** (*hexylenic  $\delta$ -glycol*) (LIPP), 1886, A., 219; (PERKIN), 1887, T., 722.
- Dihydroxyhexoic acid** [m.p. 152°] (LIEBEN and ZEISEL), 1883, A., 571.
- Dihydroxyhexoic acid lactone and salts** of (FITTIG and HILLERT), 1892, A., 959.
- iso*Dihydroxyhexoic acid lactone and salts** of (FITTIG and HILLERT), 1892, A., 959.
- o*-Dihydroxyhydrobenzoin and diethoxyanhydride** of (TIEMANN), 1892, A., 168, 167.
- p*-Dihydroxyisohydrobenzoin** (TIEMANN), 1886, A., 460.
- o*-Dihydroxyhydrobenzoins**, isomeric (TIEMANN), 1892, A., 167.
- Dihydroxyhydrolapachic acid** (HOOKER), 1891, A., 1239.
- Dihydroxyhydrolapachol** (HOOKER), 1892, T., 647.
- Dihydroxyamine barium and cadmium chlorides** (CRISMER), 1890, A., 559.
- zinc chloride** (CRISMER), 1890, A., 558.
- m*-Dihydro-xylene** (WALLACH), 1890, A., 1314.
- Dihydro-*p*-xylene**, synthesis of (V. BAEYER), 1892, A., 1182.
- Dihydroxymaleic acid**, the so-called (HENDRIXSON), 1890, A., 958.
- Dihydroxymesitylene** (*mesitylenic glycol*) (ROBINET and COLSON), 1883, A., 1095.
- 2':4'-Dihydroxy-*p*-methoxy-3':4'-dihydroquinoline** (EICHENGRÜN and EINHORN), 1891, A., 1098.
- Dihydroxymethylanthraquinone** (*chrysophanic acid*) (GRANDIS), 1892, A., 1354.
- reactions for distinguishing, from the santonin colouring matter in urine (HOPPE-SEYLER), 1887, A., 406.
- $\beta\gamma$ -Dihydroxymethyl- $\psi$ -carbostyryl** (FRIEDLÄNDER and MÜLLER), 1887, A., 978.
- m*- $\alpha$ -Dihydroxymethylcoumarilic acid** (LANG), 1887, A., 263.
- Dihydroxymethylcoumarin** (V. PECHMANN and DUISBERG), 1884, A., 67.
- 4:6-Dihydroxy- $\beta$ -methylcoumarin** (V. PECHMANN and COHEN), 1885, A., 57.
- Dihydroxymethyldihydroquinolinecarboxylic acid** (KRÓLIKOWSKI and NENCKI), 1888, A., 865.
- 2':4'-Dihydroxymethyl-3'-ethylquinoline** (RÜGHEIMER and SCHRAMM), 1887, A., 738; 1888, A., 502.

- 2':4'-Dihydroxy-1-methylquinoline, 3'-chloro- (*chlorohydroxy-o-tolucarbo-styryl*) (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- Dihydroxy-2'-methylquinoline-derivatives, synthesis of (CONRAD and LIMPACH), 1888, A., 853.
- $\beta$ -o-Dihydroxy- $\alpha$ -naphthaldehyde (BRADLEY and DAINS), 1892, A., 1459.
- 1:4'-Dihydroxynaphthalene (ARMSTRONG and WYNNE), 1887, P., 43.
- 1:1'(?)-Dihydroxynaphthalene (MELDOLA and HUGHES), 1890, T., 633.
- 1:3'-Dihydroxynaphthalene (CLAUS), 1889, A., 714.
- 2:2'-Dihydroxynaphthalene (CLAUSIUS), 1890, A., 627.
- 1:1'-dichloro- and 1:3:3':1'-tetra-chloro- (CLAUSIUS), 1890, A., 629.
- Dihydroxynaphthalene, action of, on blood (LÉPINE), 1888, A., 184.
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- Dihydroxynaphthalenedisulphonic acid, sodium ammonium salt of (WITT), 1889, A., 273.
- Dihydroxynaphthalenes, isomeric (ERDMANN), 1889, A., 157.
- Dihydroxynaphthalenes, 1:2'- and 2:3'- (EMMERT), 1888, A., 57.
- Dihydroxy- $\alpha$ -naphthaquinone (*hydroxy-juglone*) and its derivatives (MYLIUS), 1885, A., 803.
- 3:4-Dihydroxy-1:2-naphthaquinone (BAMBERGER and KITSCHOLT), 1892, A., 494; (ZINCKE), 1892, A., 720.
- 2':3''-Dihydroxynaphthaquinoxaline (KÜHLING), 1892, A., 70.
- Dihydroxydinitroanthrones (BENER), 1892, A., 1100.
- 2':2:1-Dihydroxynaphthylamine (CLAUSIUS), 1890, A., 628.
- $\alpha\beta$ -Dihydroxynaphthylamine, hydro-chloride of (KORN), 1884, A., 1186.
- Dihydroxyisonicotinamide (RUHEMANN), 1888, A., 728.
- Dihydroxydinitroberberine (MARFORT), 1889, A., 628.
- 1:3-Dihydroxydinitrodiphenylamine (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- p*-Dihydroxydinitrodiphenyltrichlor-ethane (ELBS and HOERMANN), 1889, A., 998.
- Dihydroxycenanthylphosphinic acid (VILLE), 1889, A., 1135.
- Dihydroxypentane [b.p. 260°] (*pentyl-enic glycol*) (GUSTAVSON and DEMJANOFF), 1889, A., 950; (DEMJANOFF), 1892, A., 1292.
- Dihydroxypentane [b.p. 260°] (*pentyl-enic glycol*), oxides of (DEMJANOFF), 1892, A., 1292.
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- Dihydroxypentenecarboxylic acid, di-chloro- (HANTZSCH), 1888, A., 131; 1889, A., 853.
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- Dihydroxyphenazine (FISCHER and HEPP), 1890, A., 801.
- Dihydroxyphenanthroquinone, *tetrachloro*-bromo- (BENEDIKT), 1883, A., 984.
- Dihydroxyphenoxyp propane (*phenyl-glycerol*) (LINDEMANN), 1891, A., 1198.
- 3:5-Dihydroxyphenylacetic acid (CORNELIUS and V. PECHMANN), 1886, A., 802.
- Dihydroxyphenylacrylic acid. See Caffeic acid.
- $\alpha\gamma$ -Dihydroxy- $\gamma$ -phenylbutyric acid, lactone of (BIEDERMANN), 1892, A., 472.
- $\beta\gamma$ -Dihydroxy- $\gamma$ -phenylbutyric acid (FITTIG), 1888, A., 595; (FITTIG and OBERMÜLLER), 1892, A., 986.
- Dihydroxyphenylbutyrolactone, bromo- (FISCHER and STEWART), 1892, A., 1447.
- $\alpha\beta$ -Dihydroxyphenylpropionic acid. See  $\beta$ -Phenylglyceric acid.
- Dihydroxyphenylquinoline [m.p. 114°] (WEIDEL), 1887, A., 847.
- p*-Dihydroxyphenylthiocarbamide (KALCKHOFF), 1883, A., 1110.
- Dihydroxyphenylvaleric acid (FITTIG and MAYER), 1892, A., 986.
- Dihydroxyphosphinic acids (VILLE), 1889, A., 1134; 1890, A., 618.
- $\alpha'\gamma$ -Dihydroxy- $\alpha$ -picoline (COLLIE and MYERS), 1892, T., 722.
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- Dihydroxypicoline *di*bromide (COLLIE and MYERS), 1892, T., 724.
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- Dihydroxypropanetricarboxylic acid, and its salts (KILIANI), 1885, A., 744.
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- Dihydroxypyridine (KOENIGS and GEIGY), 1884, A., 1369; (WEIDEL and BLAU), 1886, A., 76.
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- 2:6-Dihydroxypyridine, 4-amido-. See Glutazine.
- Dihydroxypyridinecarboxylic acid** (*oximidocomanic acid*) (OST), 1884, A., 1302.
- Dihydroxypyridinecarboxylic acid** (*comenamic acid*) (OST), 1883, A., 792.
- 2:4-Dihydroxypyridine-5- or 6 (?) -carboxylic acid, 3-nitro- (BISCHOFF), 1889, A., 519.
- 2:6-Dihydroxypyridine-3-carboxylic acid. See Citrazinic acid.
- Dihydroxypyromellitic acid** (*quinol-tetracarboxylic acid*) (NEF), 1888, T., 453.
- pyrazolone derivative of (NEF), 1890, A., 984.
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- $\alpha$ -Dihydroxyquinoline [m.p. 130°—136°] (LA COSTE and VALEUR), 1886, A., 629.
- $\beta$ -Dihydroxyquinoline [m.p. 68°] (LA COSTE and VALEUR), 1886, A., 629; 1888, A., 297.
- 1:2'-Dihydroxyquinoline (*hydroxycarbo-styryl*) (V. BAEYER and BLOEM), 1883, A., 197; (FRIEDLÄNDER and WEINBERG), 1883, A., 351.
- 1:4-Dihydroxyquinoline (CLAUS and POSSELT), 1890, A., 523.
- 1:1'-Dihydroxyquinoline, 2:4-dichloro- (HEBE BRAND), 1889, A., 61.
- Dihydroxyisoquinoline**, chloro- (RÜGHEIMER), 1886, A., 702.
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- 2':4'-Dihydroxyquinoline-3'-carboxylic acid (BISCHOFF), 1889, A., 519.
- 2':4'-Dihydroxyquinoline-3'-oxime (*quinisatoxime*) (V. BAEYER and HOMOLKA), 1884, A., 1029.
- 2':4'-Dihydroxyquinolinesulphonic acid (V. BAEYER and BLOEM), 1883, A., 197.
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- 2:5-Dihydroxyquinone (NIETZKI and SCHMIDT), 1888, A., 1181.
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- 2:5-Dihydroxyquinone, 3:6- diamido- (NIETZKI and SCHMIDT), 1888, A., 943.
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- 2:5-Dihydroxyquinone, 3-chloro-, action of aniline on (KEHRMANN), 1890, A., 756.
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- 3:6-Dihydroxyquinone (LOEWY), 1886, A., 1028.
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- Dihydroxyquinones**, action of, on *o*-diamines (NIETZKI and HASTERLIK), 1891, A., 944.
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- Dihydroxyquinonephenazine** (NIETZKI and SCHMIDT), 1888, A., 690.
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- Dihydroxystearic acid** (SAYTZEFF), 1886, A., 140; (SPIRIDONOFF), 1889, A., 123; (GRÖGER), 1889, A., 690.
- Dihydroxystearic acids** (M., C., and A. SAYTZEFF), 1888, A., 816.
- o*-Dihydroxystilbene (HARRIES), 1892, A., 168.
- p*-Dihydroxystilbene (ELBS and HOERMANN), 1889, A., 997.
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- 3:6-Dihydroxyterephthalic acid (*quinoldicarboxylic acid; quinonehydrodicarboxylic acid*) (WEDEL), 1884, A., 834.  
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- 3:6-Dihydroxyterephthalic acid, *di-bromo-* (BÖNIGER), 1888, A., 954.  
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- Dihydroxythiobenzene, properties of (TASSINARI), 1891, A., 186.
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- 2:3-Dihydroxytoluene, synthesis of (LIMPACH), 1892, A., 447.
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- 2:4-Dihydroxy-1:3- or -1:5-toluic acid (*cresoreinolcarboxylic acid*) (v. KOSTANECKI), 1886, A., 242.
- 5:3-Dihydroxy-*o*-toluic acid (*cresorsellinic acid*), and its salts (JACOBSEN and WIERSS), 1883, A., 1121.
- 5:3-Dihydroxy-*p*-toluic acid (WEINREICH), 1887, A., 669.
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- 3:6-Dihydroxytoluquinone, 5-nitro- (*tolunitranilic acid*) (KEHRMANN), 1888, A., 940; (KEHRMANN and BRASCH), 1889, A., 969.
- Dihydroxytoluinoxaline (BLADIN), 1885, A., 785; (HINSBERG), 1886, A., 82.
- Dihydroxytolylcarbamide (SÖDERBAUM and WIDMAN), 1889, A., 972.
- p*-Dihydroxytriphenylmethane, and its derivatives (RUSSANOFF), 1889, A., 1188; 1891, A., 1234.  
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- Dihydroxyundecylic acid (HAZURA and GRÜSSNER), 1889, A., 375.
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- 3:4-Dihydroxyxanthone (GRAEBE and EICHENGRÜN), 1891, A., 707.  
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- Di-*ω*-hydroxy-*m*-xylene (*m-xylenic glycol*) (COLSON), 1884, A., 1313.
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- 2:4-Dihydroxy-*m*-xylene (*dimethylresoreinol*) (WISCHIN), 1891, A., 74.  
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- 3:5-Dihydroxy-*p*-xylene (v. KOSTANECKI), 1887, A., 39.
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- Diimide, attempts to prepare (THIELE), 1892, A., 1430.
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- 2':4'-Diketodihydroquinazoline (ABT), 1889, A., 609.
- Diketoheptane. See *Methyl isobutyl diketone*.
- m*-Diketoexamethylene, *heptachloro-* (ZINCKE and RABINOWITSCH), 1891, A., 690.
- Diketoexamethylene-dioxime and *diphenylhydrazone* (v. BAEYER and NOYES), 1889, A., 1147, 1148.
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- α*-Diketoheptene, *hexachloro-* (ZINCKE), 1890, A., 964.
- m*-Diketoheptene, *hexachloro-* (ZINCKE and FUCHS), 1892, A., 1461.

- o*-Diketohezene**, *hexachloro*-, action of phosphoric chloride on, and behaviour of, on heating (ZINCKE and KÜSTER), 1891, A., 819.
- p*-Diketohezene**, *hexachloro*- (ZINCKE and FUCHS), 1892, A., 447.
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- $\alpha\beta$ -Diketohexylen**e (OTTE and V. PECHMANN), 1889, A., 1139.
- $\alpha$ -Diketohydrindene** (WISLICENUS), 1888, A., 1194; (WISLICENUS and KÖTZLE), 1889, A., 1067.
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- Diketohydrindene**, dioxime of (WISLICENUS and KÖTZLE), 1889, A., 1067.
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- Diketohydronaphthalene**, *tetrachloro*- (ZINCKE), 1888, A., 489.
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- o*-Diketohydronaphthalene**, *tetrachloro*-, its hydrates and alcoholates (ZINCKE and ARNST), 1892, A., 858.
- 2':2-Diketohydronaphthalene**, *deca*-*chloro*- (CLAUSIUS), 1890, A., 629.
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- $\alpha\beta$ -Diketohydronaphthalene hydrate**, *dichloronitro*- (ZINCKE and SCHARFENBERG), 1892, A., 1232.
- $\alpha_1\alpha_2$ -Diketo- $\gamma_1$ -methyljulole** (REISSERT), 1892, A., 496.
- Diketones** (BÉHAL and AUGER), 1890, A., 388.
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- action of diamines on (COMBES), 1889, A., 851.
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- Diketones**, hydrocyanides of, preparation and hydrolysis of (JAPP and MILLER), 1886, P., 249; 1887, T., 29.
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- $\alpha$ -Diketones** (V. PECHMANN), 1888, A., 811.
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- $\gamma$ -Diketones**, action of phenylhydrazine on (JAPP and HUNTLY), 1888, T., 184; P., 11.
- Diketonic acids** (KUES and PAAL), 1887, A., 261.
- $\alpha\beta$ -Diketo-octane**, secondary (OTTE and V. PECHMANN), 1889, A., 1138.
- Diketopentamethylene** derivatives, action of amines on (INCE), 1890, A., 1090.
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- $\alpha\delta$ -Diketopentane-carboxylic acids**, *mono*- and  *$\epsilon$ -dichloro*- (HANTZSCH), 1889, A., 854.
- $\alpha\beta$ -Diketopiperazines** (BISCHOFF and NASTVOGEL), 1889, A., 1015.
- $\alpha\gamma$ -Diketopiperazines** (BISCHOFF and NASTVOGEL), 1889, A., 1011.
- Diketotetrahydrobenzene**, *hexachloro*- (ZINCKE and KÜSTER), 1888, A., 1277.
- Dilactylic acid** (TANATAR and TSCHÉLÉ-BÉEFF), 1891, A., 177.
- Dilactylic acids**,  *$\alpha$ -* and  *$\beta$ -mono*- and *-di-thio*- (LOVÉN), 1884, A., 1298, 1299.
- Dilatometer**, differential, and its application in an investigation on the formation of alums (SPRING), 1884, A., 887.
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- Dimethoxyanthranilcarboxylic acid** (LIEBERMANN), 1886, A., 468.
- 1:3-Dimethoxybenzene** (*resorcinyll dimethyl ether*), 4-amido-, and its derivatives (BECHHOLD), 1889, A., 1155.
- dinitro-* (JACKSON and WARREN), 1891, A., 1025.
- Dimethoxybenzoic acid**, *di*bromo- (v. BOYEN), 1888, A., 680.
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- Dimethoxydichloroquinol** (KEHRMANN), 1889, A., 707.
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- Dimethoxydichloroquinone** (KEHRMANN), 1889, A., 707.
- p*-**Dimethoxydichloroquinone** (KEHRMANN), 1890, A., 136.
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- Dimethoxydiethylacetone** (JAMES), 1886, T., 57.
- Dimethoxydihydrochloroquinolinelactone** (LIEBERMANN and KLEEMANN), 1887, A., 48.
- Dimethoxydihydroxybenzene** (*dimethylapionole*) from *apiole* (CIAMICIAN and SILBER), 1889, A., 407; 1890, A., 35.
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- Dimethoxystilbenes**, *o*- and *p*- (KOPP), 1892, A., 719.
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- o*-**Dimethoxy-m-tolidine** (BRASCH and FREYSS), 1891, A., 1232.
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- Dimethyl diketone** (*diacetyl*), derivatives of (V. PECHMANN), 1888, A., 811.  
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- Dimethyl diketone**, *di*bromo- (FITTIG, DAIMLER and KELLER), 1889, A., 491.  
*s-tetrabromo-* (KELLER), 1890, A., 359.  
*tetrachloro-* (LEVY and JEDLICKA), 1888, A., 443.  
 action of ammonia and ethylenediamine on (LEVY), 1890, A., 475.  
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*trichloramido-* (LEVY, WITTE and CURCHOD), 1890, A., 233.
- Dimethyl diketonecarboxylic acid** (*ketipic acid*) (FITTIG and DAIMLER), 1887, A., 362; (FITTIG, DAIMLER and KELLER), 1889, A., 490.
- Dimethyl ketone**. See Acetone.
- Dimethylacetal**, *trichloro-* (MAGNANIMI), 1887, A., 28.
- Dimethylacetoacetic acid** (CERESOLE), 1883, A., 41.
- Dimethylacetone**. See Methyl *isopropyl* ketone.
- Dimethylacetylbutylamine** (LIPP), 1892, A., 1244.
- Dimethylacetylene** and its *tetrabromides* (FAWORSKY), 1890, A., 1220.  
 See also Butinene.
- Dimethylacetylenedicarbamide** (FRANCHIMONT and KLOBBIE), 1889, A., 126.
- $\alpha\alpha'$ -Dimethylacetylhexoic acid** (KIPPING and MACKENZIE), 1891, T., 570, 584.
- $\alpha\omega$ -Dimethyl- $\omega$ -acetylhexoic acid** (KIPPING and MACKENZIE), 1890, P., 117.
- Di*- $\alpha$ -methyl- $\beta$ -acetylpropionic acid** (*mesitonic acid*) (ANSCHÜTZ and GILLET), 1888, A., 1272.
- $\alpha\beta$ -Dimethylacraldehyde** (LIEBEN and ZEISEL), 1886, A., 783; (HAYMANN), 1889, A., 487.
- Dimethylacridine** (BONNA), 1887, A., 928.
- Dimethylacridinium hydroxide** (BERNTHSEN), 1884, A., 1356.
- Dimethylacrylic acid** (*pentenoic acid*) (GORBOFF and KESSLER), 1888, A., 814.
- Dimethylacrylic acid** (*pentenoic acid*) from *isovaleric acid* (DUVILLIER), 1891, A., 1011.  
 polymeric (HELL and MAYER), 1889, A., 374.
- $\beta$ -Dimethylacrylic acid**, and its salts (USTINOFF), 1886, A., 140; 1887, A., 359.
- s*-Dimethyladipic acid** (ZELINSKY; AUWERS and MEYER), 1890, A., 132.
- Dimethyladipic acids**, stereoisomeric (ZELINSKY), 1892, A., 430.
- Dimethylæsculetin** (TIEMANN and WILL), 1883, A., 199.
- Dimethylalloxanphenylhydrazone** (KÜHLING), 1892, A., 442.
- Dimethylalloxazine** (KÜHLING), 1891, A., 1342.
- Dimethylallylcarbinol**, bye-product of the preparation of (DIEFF), 1883, A., 1076.  
 crude, an alcohol in (POUTOKIN), 1884, A., 1283.  
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- Dimethyl- $\beta$ -allylcarbinol** (*dimethylisopropenylcarbinol*) (CHUPOTSKY and MARIUTZA), 1890, A., 727.  
 action of acids on (MARIUTZA), 1890, A., 728.
- Dimethylallylene** (*pentinene*), action of hydrogen chloride on (KONDAKOFF), 1889, A., 1127.  
 conversion of, into *isopropylacetylene* (FAWORSKY), 1888, A., 1169.  
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- $\alpha\beta$ -Dimethylallylic alcohol** (LIEBEN and ZEISEL), 1886, A., 784.
- Dimethylamarine**, formula of (CLAUS), 1883, A., 204.
- s*-Dimethylamides** (HENRY), 1885, A., 887.
- Dimethylamidoazo-**. See under Azo-.
- p*-Dimethylamidobenzaldoxime** (KNÖFLER and BOESSNECK), 1888, A., 267.
- Dimethylamidobenzamide** (KNAPE), 1891, A., 910.
- Dimethylamidobenzeneazo-**. See under Azo-.
- Dimethyl- *mono*- and -*di*-amidobenzhydrols** and their derivatives (ALBRECHT), 1889, A., 263, 264.
- p*-Dimethylamidobenzoic acid**, nitroso-, and its derivatives (BISCHOFF), 1889, A., 511.
- Dimethylamidobenzophenone**, nitroso- (BISCHOFF), 1889, A., 511.
- Dimethyldiamidobenzophenone**, *tetra*-nitro- (VAN ROMBURGH), 1888, A., 1079, 1197.

*p*-Dimethylamidobenzylidenephénylhydrazine (KNÖFLER and BOESSNECK), 1888, A., 267.

$\beta$ -Dimethylamidocrotonanilide (KNORR), 1892, A., 708.

Dimethylamidocyanuric acid and chloride (V. HOFMANN), 1886, A., 40.

Dimethylamidodicarbimidoamidobenzoic acid (GRIESS), 1885, A., 1225.

Dimethylamidodiphenylamine (FISCHER and WACKER), 1888, A., 1286.

dinitro- (LELLMANN and MACK), 1890, A., 1410.

Dimethyltriamidodiphenylamine (KEHRMANN and MESSINGER), 1892, A., 1109.

Dimethyldiamidodiphenylmethane (ALBRECHT), 1889, A., 264.

Dimethyltriamidodiphenyltolylmethane (NÖLTING), 1891, A., 727; 1892, A., 189.

Dimethylamidohexylene (TAFEL and NEUGEBAUER), 1890, A., 1001.

Dimethylamidohydroquinoline hydrochloride (OSTERMAYER), 1885, A., 814.

Dimethylamidomethylhydroquinoline dimethiodide (ZIEGLER), 1888, A., 610.

Dimethylamidomethylphenazine (BERNTHSEN and SCHWEITZER), 1887, A., 139.

Dimethylamidomethylthiazole (HANTZSCH and WEBER), 1888, A., 257.

$\alpha$ -Dimethylamido- $\alpha$ -naphtha-phenazine and -tolazine (EICKER), 1891, A., 471.

Dimethyl-*m*-amidophenetol (VOM BAUR and STAEDL), 1883, A., 579.

Dimethylamidophenol, dinitro-, and its derivatives (LIPPMANN and FLEISSNER), 1886, A., 235.

Dimethyl-*m*-amidophenol, nitroso- (MÖHLAU), 1892, A., 887.

Dimethylamidophenyl hexyl ketone (AUGER), 1887, A., 815.

Dimethylamidophenylarsine oxide and sulphide (MICHAELIS and RABINERSON), 1892, A., 1321.

Dimethylamidophenyltrichloromethylcarbinol (BOESSNECK), 1885, A., 976.

Dimethylamidophenylethane (HEUMANN and WIERNIK), 1887, A., 1039.

Dimethyl-*p*-amidophenylic ethylxanthate (LEUCKART), 1890, A., 605.

Dimethylamidophenyl-phosphinous and -phosphonic acids (SCHENK and MICHAELIS), 1888, A., 834.

Dimethylamidophenylphosphorous chloride (SCHENK and MICHAELIS), 1888, A., 834.

Dimethylamidophenylquinoneimide (*phenol-blue*) (MÖHLAU), 1884, A., 594; 1886, A., 146; (FOGH), 1888, A., 592.

trichloro- (MÖHLAU), 1884, A., 595.

Dimethylamidopropionic acid (DUVILLIER), 1892, A., 1302.

Dimethylamidoquinoline (LA COSTE), 1883, A., 811.

Dimethyldiamidoquinoxaline (NIETZKI and MÜLLER), 1889, A., 604.

Dimethyl-*mono*- and -*di*-quinoxazones (MÖHLAU), 1892, A., 888.

Dimethylamidosulphonic chloride and its derivatives (BEHREND), 1884, A., 285.

Dimethylamine, properties of (V. HOFMANN), 1889, A., 688.

heat of formation of (MULLER), 1889, A., 811.

action of bromine on (RASCHIG), 1885, A., 1195.

Dimethylamine chlororhodate (VINCENT), 1886, A., 311.

hydrogen diaminechromium thiocyanate (CHRISTENSEN), 1892, A., 1000.

platinothiocyanate (GUARESCHI), 1892, A., 286.

vanadates (BAILEY), 1884, T., 693, 694.

nitro-, reduction of (FRANCHIMONT), 1885, A., 963.

Dimethylanhydracetonebenzil (JAPP and BURTON), 1887, T., 432; P., 32.

Dimethylaniline (V. HOFMANN), 1884, A., 1320.

manufacture of (SCHOOP), 1887, A., 474; (MÜHLHÄUSER), 1887, A., 576.

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action of chloral hydrate on (BOESSNECK), 1885, A., 976.

action of, on ethylene bromide (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1317.

action of cenanthaldehyde and heptylic chloride on, in presence of zinc chloride (AUGER), 1887, A., 814.

action of sulphur on (MÖHLAU and KROHN), 1888, A., 364.



- Dimethylaniline**, nitration of (NÖLTING and COLLIN), 1884, A., 1013; (NÖLTING), 1886, A., 543.  
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- Dimethylaniline cyanhydrin**, nitroso- (LIPPMANN and FLEISSNER), 1885, A., 1213.  
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 oxyalkyl derivatives of, reaction of (GRIMAU), 1891, A., 693.  
 platinochloride, preparation of (REINHARDT and STAEDEL), 1883, A., 578.  
*disilicofluoride*, *trinitroso*- (COMEY and SMITH), 1888, A., 1283.  
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*disulphide*, *diimido*- (BERNTHSEN), 1889, A., 776.
- Dimethylaniline**, amido-. See Dimethylphenylenediamine.  
*o*- and *p*-chloro-, and their derivatives (HEIDLBERG), 1887, A., 474.  
*m*-nitro- (GROLL), 1886, A., 347; (STAEDEL and BAUER), 1886, A., 941.  
*p*-nitro- (LIPPMANN and FLEISSNER), 1883, A., 1100; (NÖLTING and COLLIN), 1884, A., 1013.  
*di*- and *tri*-nitro- (VAN ROMBURGH), 1888, A., 1080.  
*isodinitro*- (VAN ROMBURGH), 1887, A., 245.  
*pentanitro*-, non-existence of (VAN ROMBURGH), 1885, A., 660.  
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 thio- (HOLZMANN), 1887, A., 723; (MICHAELIS and GODCHAUX), 1890, A., 610.  
*dithio*- (MERZ and WEITH), 1886, A., 792.
- Dimethylanilinealloxan** (PELLIZZARI), 1888, A., 682.
- Dimethylanilineazobenzylpiperidine** (LELLMANN and PEKRUN), 1891, A., 89.
- Dimethylanilineazylene** (LIPPMANN and FLEISSNER), 1883, A., 55, 185.
- Dimethylanilinefurfural hydrochloride** (SCHIFF), 1886, A., 612.
- Dimethylanilinequinonimide**. See Phenol-blue.
- Dimethylanilinesulphonic acid** (MICHAELIS and GODCHAUX), 1890, A., 610.
- Dimethylanilinisatin** (v. BAEYER and LAZARUS), 1886, A., 155.
- Dimethyl-*o*-anisidine**, action of nitric acid on (VAN ROMBURGH), 1892, A., 159.  
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*mono*- and *tri*-nitro- (GRIMAU and LEFÈVRE), 1891, A., 1031.
- Dimethylanthracene** [m.p. 216°] (ELBS and WITTICH), 1885, A., 518.
- 2:3-Dimethylanthracene** (ELBS and EURICH), 1887, A., 841.
- 1:3-Dimethylanthracene**, *di*bromo- (ELBS), 1890, A., 511.
- Dimethylanthrachrysone** (CAHN), 1886, A., 556.  
 “*m*-Dimethylanthracylene” (ELBS), 1890, A., 511.
- Dimethylanthraflavic acid** (*dihydroxydimethylanthraquinone*) and its acetyl- and benzoyl-derivatives (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 1240.
- Dimethylanthragallol** (*trihydroxydimethylanthraquinone*) (BIRUKOFF), 1887, A., 592.
- Dimethylanthramine** (BOLLERT), 1883, A., 1139.
- 1:3-Dimethylanthranol** (ELBS), 1890, A., 511.
- Dimethylanthraquinone** [m.p. 236°] (ANSCHÜTZ and ROMIG), 1885, A., 768.
- $\alpha$ -*m*- $\beta$ -Dimethylanthraquinone** (ELBS), 1886, A., 557.
- 1:4-Dimethylanthraquinone** (ELBS), 1890, A., 512.
- Dimethylanthraquinones**, 1:3- and 2:3- (ELBS and GÜNTHER; ELBS and EURICH), 1887, A., 841.
- Dimethylanthraquinonecarboxylic acid** (GRESLY), 1886, A., 1029.
- Dimethylanthrarufin** (*s-dihydroxydimethylanthraquinone*) (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 531.  
 distillation of, with zinc-dust (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 1240.
- Dimethylanthrone** (HALLGARTEN), 1888, A., 1202.
- Dimethylapionole** (*dimethoxydihydroxybenzene*) (CIAMICIAN and SILBER), 1889, A., 407; 1890, A., 35.
- Dimethylapionylcarboxylic acid** (BARTOLOTTI), 1892, A., 1315.
- Dimethylarsinic acid** (*cacodylic acid*), action of, in the animal economy (MARSHALL and GREEN), 1886, A., 730.

- Dimethylasparagine** (KÖRNER and MENOZZI), 1890, A., 870.
- Dimethylazethane** (CURTIUS and THUN), 1891, A., 1356.
- Dimethylazobenzene**, *tetranitro-* (MERTENS), 1886, A., 1022.
- Dimethylbarbituric acid** (*dimethylmalonylurea*) (CONRAD and GUTHZEIT), 1883, A., 315.
- Dimethylbenzaldehyde** (HINRICHSSEN), 1889, A., 131, 391.
- Dimethylbenzamide**, nitro- (VAN ROMBURGH), 1886, A., 546.
- Dimethylbenzidine**, *tetranitro-* (VAN ROMBURGH), 1887, A., 245.
- 2:2'-Dimethylbenzimidazole** (BAMBERGER and BERLE), 1892, A., 632.
- Dimethylbenzodihydroxyanthraquinone** and its acetyl derivative (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 1240.
- 2:3-Dimethylbenzoic acid** (*hemimellithylic acid*) (JACOBSEN), 1887, A., 36.
- 2:4-Dimethylbenzoic acid** (*xylic acid*), bromo- (GUNTER), 1884, A., 1347. nitro- (AHRENS), 1892, A., 1437. 3-nitro- (CLAUS), 1890, A., 980. 3:5-dinitro- (CLAUS), 1890, A., 981.
- 2:5-Dimethylbenzoic acid** (*p-xylic acid*), bromo-, and its salts (GUNTER), 1884, A., 1347.
- 3:5-Dimethylbenzoic acid** (*mesitylenic acid*), thermochemistry of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096. bromo-, preparation of, from bromomesitylene (SÜSSENGUTH), 1883, A., 469. dibromo-, and its salts (SÜSSENGUTH), 1883, A., 470.
- o-m*-Dimethylbenzoylacetic acid** (CLAUS and FICKERT), 1887, A., 253.
- " $\alpha$ -Dimethylbenzoylenecarbamide"** (ABT), 1889, A., 610.
- o-p*-Dimethylbenzoyl- $\beta$ -propionic acid** (CLAUS and WERNER), 1887, A., 827.
- Dimethylbenzoyl- $\psi$ -cumidine methiodide** (FRÖHLICH), 1885, A., 154.
- Dimethylbenzyl salts** (HINRICHSSEN), 1889, A., 391.
- Dimethylbismuthine** bromide and chloride (MARQUARDT), 1887, A., 802. hydroxide (MARQUARDT), 1887, A., 803.
- Dimethylbromobenzeneazammonium compounds** (ZINCKE and ARZBERGER), 1889, A., 502.
- Dimethyl dibromoheptamethylene** (KIPPING and PERKIN), 1891, T., 223.
- Dimethylbromodinitroresorcinol** (JACKSON and WARREN), 1891, A., 1025.
- Dimethyltrichloronitroresorcinol** (JACKSON and WARREN), 1891, A., 1026.
- "Dimethylbutylallylcarbinamine"** (MERLING), 1891, A., 1506.
- Dimethylisobutylallylcarbinol** (SCHATZKI), 1885, A., 237.
- 2:6-Dimethyl-4-isobutylpyridine** (*isobutylutidine*) (ENGELMANN), 1886, A., 260.
- 2:6-Dimethyl-4-isobutylpyridine-3:5-dicarboxylic acid** (ENGELMANN), 1886, A., 260.
- as*-Dimethylcarbamide** (VAN DER ZANDE), 1889, A., 962.
- Dimethylcarbazole** (TÄUBER and LOEWENHERZ), 1891, A., 835, 1491. *diamido-* (TÄUBER and LOEWENHERZ), 1891, A., 834.
- Dimethylcarbostyryl** (KNORR), 1888, A., 1111. *o*-, *m*- and *p*- (KNORR), 1888, A., 1112.
- 1':4'-Dimethyl- $\psi$ -carbostyryl** (KNORR), 1887, A., 159; (KNORR and KLOTZ), 1887, A., 278; (REISSERT), 1892, A., 498.
- Dimethylcarbostyrylsulphonic acid** (KNORR), 1888, A., 1111.
- Dimethyltrichloracetamide** (CLOËZ), 1887, A., 1098.
- Dimethyl-*m*-chloraniline** and its salts (VOM BAUR and STAEDEL), 1883, A., 579.
- Dimethylchlorodiamidoethoxyquinone** (KEHRMANN), 1891, A., 904.
- Dimethyltrichlorobromobenzeneazammonium iodide** (ZINCKE and ARZBERGER), 1889, A., 502.
- p-a*-Dimethylcinchonic acid** (PFITZINGER), 1889, A., 413.
- Dimethylcinchonine** (FREUND and ROSENSTEIN), 1892, A., 892.
- Dimethylcolchicine acid** (ZEISEL), 1888, A., 614.
- Dimethylcoumarilic acids** (HANTZSCH and LANG), 1886, A., 706.
- $\beta$ -5-Dimethylcoumarin** (v. PECHMANN and COHEN), 1885, A., 56.
- Dimethylcoumarone** (HANTZSCH and LANG), 1886, A., 706.
- Dimethyl- $\psi$ -cumidine** (v. HOFMANN), 1883, A., 324.
- Dimethylcyanidine**, amido- (TSCHERVEN-IWANOFF), 1892, A., 1291.
- Dimethylcyanine iodide** (HOOGWERFF and VAN DORP), 1885, A., 673.
- Dimethyl-*n*- and -*iso*-cyanuric acids** (v. HOFMANN), 1886, A., 929, 930.

- Dimethyldehydrothiitoluidine** (GREEN), 1889, T., 230.
- aa'-Dimethyl-aa'-diacetylpentane** (KIPPING and MACKENZIE), 1890, P., 116; 1891, T., 570, 587.  
dioxime of (KIPPING and MACKENZIE), 1891, T., 588.
- Dimethyldiazine** (STOEHR), 1892, A., 507; (DENNSTEDT), 1892, A., 633.
- 2:6-Dimethyl-m-diazine**, 4-amido-. See Cyanmethine.
- Dimethyl-dicoumaric acid** and **-dicoumarin** (HANTZSCH and ZÜRCHER), 1887, A., 830.
- Dimethyldiethylammonium chloride** and **hydroxide**, action of heat on (COLLIE and SCHRYVER), 1890, T., 780.
- Dimethyldiethylindamine thiosulphonate** (BERNTHSEN), 1889, A., 778.
- Dimethyldiethyl-p-phenylenediamine** (LIPPMANN and FLEISSNER), 1884, A., 179.  
*di*iodomethylate (LIPPMANN and FLEISSNER), 1884, A., 178.
- Dimethyldiethylphosphonium chloride**, action of heat on (COLLIE), 1888, T., 720.
- Dimethyldiethylsulphonamide** (BEHREND), 1884, A., 286.
- Dimethyldihydrazimethylene** (CURTIUS and THUN), 1891, A., 1356.
- s-Dimethyldihydroanthracene** (ANSCHÜTZ and ROMIG), 1885, A., 768.  
synthesis of, from benzene and ethyldienic chloride (ANGELBIS and ANSCHÜTZ), 1884, A., 753.
- as-Dimethyldihydroanthracene** (HALLGARTEN), 1888, A., 1202.
- Dimethyldihydronaphthol** (CANNIZZARO), 1884, A., 327.
- Dimethyldihydronaphthylpropionic acids** (*dihydrosantinic acids*) (GUCCI and GRASSI-CRISTALDI), 1892, A., 871.
- Dimethyldihdropentene methyl ketone** (PERKIN and STENHOUSE), 1892, T., 77.  
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- Dimethyldihdropentenedicarboxylic acid** (PERKIN and STENHOUSE), 1892, T., 81.
- Dimethyldihdropyridine** [b.p. 199°] (GAUTIER and MOURGUES), 1888, A., 1315.
- βγ-Dimethyldihydroquinazoline** (GABRIEL and JANSEN), 1892, A., 218.
- Dimethyldiketohexamethylene** (v. BAeyer), 1892, A., 1183.
- Dimethyldiketohydrindene** (WISLICENUS and KÖTZLE), 1889, A., 1068.
- Dimethyldimethylenetrissulphone** (BAUMANN), 1890, A., 1093.
- Dimethyldipiperidyl** [b.p. 265°], and its derivatives (LADENBURG), 1892, A., 1487.
- Dimethyldipiperidyl** [b.p. 230°—232°] and its derivatives (LIEBRECHT), 1887, A., 162.
- iso***Dimethyldipropyl-dithioamide** (WALLACH and REINHARDT), 1891, A., 1008.
- aa'-Dimethyldipyridyl** (HEUSER and STOEHR), 1891, A., 80.
- ββ'-Dimethyldipyridyl** (STOEHR and WAGNER), 1892, A., 629.
- "Dimethyldiquinizininhydrobenzene"** (KNORR and BÜLOW), 1884, A., 1381.
- Di-2'-methyl-diquinolyl** (HINZ), 1888, A., 39.
- Dimethyldiquinolyl** [m.p. 162°] (v. MILLER), 1888, A., 966.
- Dimethyldiquinolyl** [m.p. 104°—105°] (ELIASBERG and FRIEDLÄNDER), 1892, A., 1107.
- p*-**Dimethyldisalicylaldehyde** (BRADLEY and DAINS), 1892, A., 1459.
- Dimethyldisulphisethionic acid**, sodium salt of (ENGELCKE), 1883, A., 972.
- Dimethyldisulphobenzoic acid**, salts of (STENGEL), 1883, A., 1000.
- Dimethylenedisulphone**, derivatives of (AUTENRIETH), 1887, A., 463.
- Dimethylenedi-p-toluidine** (GRÜNHAGEN), 1890, A., 888.
- Dimethylenemethane** (GUSTAVSON and DEMJANOFF), 1889, A., 30.
- Dimethylenethane**, preparation and oxidation of (ARMSTRONG and MILLER), 1886, T., 81.
- Dimethylenethylenedisulphone** (FASBENDER), 1888, A., 805.
- 1:4-Dimethyl-6-ethylaniline** (HODGKINSON and LIMPACH), 1892, T., 420; P., 56.
- Dimethylethylazimethylene** (CURTIUS and THUN), 1891, A., 1355.
- 1:3-Dimethyl-5-ethylbenzene** (ANSCHÜTZ and ROMIG), 1885, A., 769; (JACOBSEN), 1887, A., 37; (TÖHL and GEYGER), 1892, A., 969.
- 1:2-Dimethyl-4-ethylbenzene**. See Laurene.
- Dimethylethylcarbinol**. See *tert*-Amylic alcohol.
- 2':3'-Dimethyl-1'-ethyl-1':2'-dihydroquinoline** (FISCHER and STECHE), 1887, A., 976.
- Dimethylethylenediamine** (ANGELI), 1890, A., 954.



- Dimethylethylenedisulphone** (OTTO and CASANOVA), 1888, A., 255.
- Dimethylethylene-o-phenylenediamine** and its derivatives (RIS), 1888, A., 468.
- s*-**Dimethylethylene oxide** ( $\psi$ -butylenic oxide) (ELTEKOFF), 1883, A., 567.
- 2':3'-Dimethyl-1'-ethylindole** (WOLFF), 1889, A., 259.
- Dimethylethyl naphthalene** (GUCCI and GRASSI-CRISTALDI), 1892, A., 872.
- Dimethylethylphosphine** (COLLIE), 1888, T., 720.
- Dimethylethylpiperidine** (JAECKLE), 1888, A., 1104.
- Dimethylethylpyridine** (*parvoline*) (DÜRKOPF and SCHLAUGK), 1888, A., 607.  
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- 2:6-Dimethyl-4-ethylpyridine** and salts of (ENGELMANN), 1886, A., 259.  
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- 2:6-Dimethyl-4-ethylpyridine-3:5-dicarboxylic acid** (ENGELMANN), 1886, A., 259.
- 3:3'-Dimethyl-2'-ethylquinoline** and its derivatives (HARZ), 1886, A., 261.
- 3:3'-Dimethyl-2'-ethylquinoline-1-carboxylic acid** (V. MILLER), 1890, A., 1327.
- Dimethylethylsuccinic acid** (BISCHOFF and MINTZ), 1890, A., 743; 1891, A., 290; (BISCHOFF), 1891, A., 829.
- Dimethylethylsulphine**, preparation of (CARRARA), 1892, A., 1422.  
and its derivatives (KLINGER and MAASSEN), 1888, A., 357.
- Dimethylethylthymoquinol** (REYCHLER), 1892, A., 1312.
- Dimethylformamide**, platinochloride of (PINNER), 1883, A., 1089.
- Dimethylformamidine**, and its hydrochloride (PINNER), 1883, A., 731.
- iso***Dimethylformamidine hydrochloride** (PINNER), 1883, A., 1090.
- Dimethylfraxetin** (KÖRNER and BIGINELLI), 1892, A., 628.
- Dimethylfurfurancarboxylic acid**. See Pyrotritaric acid.
- Dimethylfurfurandicarboxylic acid**. See Carbopyrotritaric acid.
- Dimethylgentisic acid** (SCHNELL), 1887, A., 140.
- Dimethylgentisic aldehyde** (SCHNELL), 1884, A., 1166.
- Dimethylglutaric acid**, relative properties of trimethylsuccinic acid and (ZELINSKY and BESREDKA), 1891, A., 669.
- aa*-**Dimethylglutaric acid** (AUWERS and JACKSON), 1890, A., 1099.
- s*-**Dimethylglutaric acid** (BISCHOFF), 1890, A., 1099; (AUWERS and KÖBNER), 1891, A., 1015.
- Dimethylglutaric acids** (GUTHZEIT and DRESSSEL), 1890, A., 878; (AUWERS and KÖBNER), 1891, A., 1016.
- s*-**Dimethylglutaric acids**, isomeric (ZELINSKY), 1890, A., 132.
- aa*-**Dimethylglutaric anhydride** (AUWERS and JACKSON), 1890, A., 1099.
- aa*-**dibromo-** (AUWERS and JACKSON), 1890, A., 1099.
- aa***-Dimethylglyceric acid**. See Dihydroxyvaleric acid.
- aa***-Dimethylglycidic acid** (MELIKOFF), 1886, A., 1009; 1888, A., 1177.
- Dimethylglycoluril** (FRANCHIMONT and KLOBBIE), 1888, A., 1180; 1889, A., 126.
- Dimethylglyoxaline** (*oxalmethylethylene*), synthesis of (RADZISZEWSKI), 1883, A., 728.
- Dimethylglyoxime peroxide** (SCHOLL), 1891, A., 316.
- Dimethylheptamethylene** (KIPPING and PERKIN), 1891, T., 227.
- o*-**Dimethylheptamethylene** (KIPPING and PERKIN), 1889, P., 145.  
*dibromo-* (KIPPING and PERKIN), 1889, P., 145.
- Dimethylheptamethylenic diacetate** (KIPPING and PERKIN), 1891, T., 225.  
glycol (KIPPING and PERKIN), 1891, T., 217.
- a*-**Dimethylheptylethylene** (*nonylene*) (FREUND and SCHÖNFELD), 1892, A., 133.
- Dimethylhexadecylbenzene** (KRAFFT and GÖTTIG), 1889, A., 130.
- 2:6-Dimethylhexahydropyridine** (*lupetidine*) (LADENBURG), 1887, A., 64.  
and allied substances, relation between the physiological action and chemical constitution of (GÜRBER), 1891, A., 854.
- Dimethylhexylazimethylene** (CURTIUS and THUN), 1891, A., 1355.
- Dimethylhexylcarbinol** (*nonylic alcohol*) (FREUND and SCHÖNFELD), 1892, A., 133.
- Dimethylhexyl-hexahydropyridine and pyridine** (JAECKLE), 1888, A., 1104.
- Dimethylhomogentisic acid** (WOLKOW and BAUMANN), 1891, A., 1129.
- Dimethylhomo-o-phthalimide** (GABRIEL), 1887, A., 51, 726.

- Dimethylhomopyrocatechol** (GOLD-SCHMIEDT), 1884, A., 186.
- 2:4-Dimethylhydropyridine** (LADENBURG and ROTH), 1885, A., 816.
- Dimethylic acetylenedicarboxylate** (v. BANDROWSKI), 1883, A., 313.
- amidocyanurate** (v. HOFMANN), 1886, A., 930.
- barium phosphate** (LOSSEN and KÜHLER), 1891, A., 1015.
- berberilate** (PERKIN), 1890, T., 1050.
- camphorate** (WALKER), 1892, T., 1092; (BRÜHL), 1892, A., 1102.
- carbopyrotritarate** (KNORR and CAVALLLO), 1889, A., 385.
- carboxycarbamate** (FRANCHIMONT and KLOBBIE), 1889, A., 1144.
- dichloroglycollate** (ANSCHÜTZ), 1890, A., 236.
- diacetylracemate**, molecular weight of (ANSCHÜTZ), 1888, A., 1273.
- diethylic oxalate** (ANSCHÜTZ), 1890, A., 236.
- $\Delta_{1,4}$ -dihydroterephthalate**, heats of combustion and formation of (STOHMANN and KLEBER), 1891, A., 376.
- dipropylic glycol** (MARSHALL and PERKIN), 1890, P., 138; 1891, T., 875.
- fumaroid-hexahydroterephthalate**, heats of combustion and formation of (STOHMANN and KLEBER), 1891, A., 376.
- succinosuccinate** (EBERT), 1885, A., 1122.
- $\alpha$ -sulphaminephthalate** (MOULTON), 1891, A., 1063.
- terephthalate and  $\Delta_1$ -tetrahydroterephthalate**, heats of combustion and formation of (STÖHMANN and KLEBER), 1891, A., 376.
- Dimethylimidomethylthiazoline** (TRAUMANN), 1889, A., 415.
- Dimethylimidothiazoline** (NÄF), 1891, A., 1516.
- Dimethylindamine thiosulphonate** (BERNTHSEN), 1889, A., 778.
- 2':3'-Dimethylindazole** (*dimethylindazine*) (FISCHER and TAFEL), 1885, A., 542.
- 1':3'-Dimethylisindazole** (FISCHER and TAFEL), 1885, A., 543.
- $\beta\gamma$ -Dimethylindene, *m*-amido-** (v. MILLER and ROHDE), 1890, A., 1138.
- Dimethylindigo** (FLIMM), 1890, A., 383.
- synthesis of** (ECKENROTH), 1891, A., 722.
- 2:2'-Dimethylindole** (RASCHEN), 1887, A., 956.
- 2':3'-Dimethylindole** (FISCHER), 1886, A., 805; 1887, A., 149; (WOLFF), 1888, A., 371.
- 4:1'-Dimethylindole** (HEGEL), 1886, A., 552.
- Dimethylindoles** (FISCHER), 1887, A., 148.
- Dimethylindoles, 1':2'- and 1':3'-** (DEGEN), 1887, A., 149.
- Dimethylindoleacetic acid** (FISCHER), 1886, A., 806.
- 1':2'-Dimethylindole-1'-carboxylic acid** (FISCHER), 1886, A., 806; (DEGEN), 1887, A., 149.
- 2:1'-Dimethylindole-2-carboxylic acid** (HEGEL), 1886, A., 552.
- 4:1'-Dimethylindole-2'-carboxylic acid** (HEGEL), 1886, A., 552.
- Dimethylodamine** (RASCHIG), 1886, A., 44.
- Dimethylketol** (v. PECHMANN), 1889, A., 1137; (v. PECHMANN and DAHL), 1890, A., 1234.
- Dimethylketopentene** (DIETZEL), 1889, A., 594.
- Dimethylactamidine hydrochloride** (PINNER), 1891, A., 63.
- Dimethyllevulinic acid** (ZELINSKY), 1887, A., 921.
- $\alpha$ -Dimethyllevulinic acid** (*mesitonic acid*) (ANSCHÜTZ and GILLET), 1888, A., 1272.
- s*-Dimethylmaleic acid** (*pyrocinchonic acid*) (ROSER), 1883, A., 98.
- from  $\alpha$ -dichloropropionic acid** (OTTO and BECKURTS), 1885, A., 753.
- relation of, to the dimethylsuccinic acids** (BISCHOFF and VOIT), 1890, A., 743.
- anhydride of** (RACH), 1886, A., 1012.
- preparation of** (MICHAEL and TISSOT), 1891, A., 1456; (FITTIG and PARKER), 1892, A., 814.
- action of phenylhydrazine on** (OTTO and HOLST), 1890, A., 1327.
- s*-Dimethylmaleic  $\alpha$ - and  $\beta$ -phenylhydrazines** (OTTO and HOLST), 1890, A., 1327.
- Dimethylmaleinluorescein** (BURCKHARDT), 1886, A., 51.
- Dimethylmalonamide** (FREUND), 1884, A., 728.
- dibromo-** (FREUND), 1884, A., 1124.
- dinitro-** (FRANCHIMONT), 1886, A., 449.
- Dimethylmalonic acid** (*isopyrotartaric acid*) (CARETTE), 1886, A., 335, 611; (GORBOFF), 1888, A., 1179.
- specific heat of** (HESS), 1889, A., 93, 94.
- thermochemistry of** (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097.

- o-p*-Dimethylmandelic acid (CLAUS), 1890, A., 979.
- Dimethylmethylenethylene disulphide (FASBENDER), 1888, A., 805.
- Dimethylmethylenehydrazine (CURTIUS and PFLUG), 1892, A., 457.
- Dimethylmethylenemidosulphonic acid (KRAFFT and BOURGEOIS), 1892, A., 701.
- Dimethylmethylenesulphone (BAUMANN and KAST), 1889, A., 1232.
- Dimethylmethylenedithioglycollic acid (BONGARTZ), 1888, A., 479.
- Dimethyl- $\beta$ -methylumbellic acid (*dimethoxyphenylcrotonic acid*) (V. PECHMANN and COHEN), 1884, A., 1331.
- Dimethylnaphthaurhodine (WITT), 1888, A., 491; (EICKER), 1891, A., 471.
- Dimethylnaphthalene [b.p. 265°] (CANNIZZARO and CARNELUTTI), 1883, A., 79; (CANNIZZARO), 1884, A., 328.
- Dimethylnaphthaloxazine (KÜHLING), 1892, A., 70.
- Dimethyl- $\alpha$ -naphthaquinoline (REED), 1887, A., 681; (COMBES), 1888, A., 968.
- Dimethyl- $\beta$ -naphthaquinoline (COMBES), 1888, A., 968.
- 2':4':Dimethyl- $\beta$ -naphthaquinoline (REED), 1886, A., 370; 1887, A., 681.
- Dimethyl- $\beta$ -naphthaquinolinesulphonic acid (REED), 1887, A., 681.
- 2'':3'':Dimethyl- $\alpha$ -naphthindole (WOLFF), 1889, A., 259.
- 2'':3'':Dimethyl- $\beta$ -naphthindole (STECHE), 1888, A., 285; (WOLFF), 1889, A., 259.
- Dimethylnaphthol (CANNIZZARO and CARNELUTTI), 1883, A., 79.
- 2:6-Dimethylnicotinic acid (*dimethylpyridinecarboxylic acid*) (WEISS), 1886, A., 720.
- Dimethyldinitrodiamidobenzophenone, tetranitro- (VAN ROMBURGH), 1888, A., 1079, 1196.
- Dimethylnitropyrrylene diketone (CIAMICIAN and SILBER), 1886, A., 74, 718.
- Dimethylnitrosamine (VAN ROMBURGH), 1887, A., 230.
- Dimethylorcinol dimethyl ether (KRAUS), 1891, A., 1347.
- Dimethylorcinols (KRAUS), 1891, A., 1347.
- Dimethyloxamide (MALY and ANDREASCH), 1883, A., 1018.
- dinitro- (FRANCHIMONT), 1886, A., 448.
- $\alpha\gamma$ -Dimethylisooxazole, reduction of (CLAISEN), 1892, A., 507.
- Dimethyloxetone (FITTIG and RASCH), 1890, A., 868.
- Dimethyloxetonecarboxylic acid (FITTIG and RASCH), 1890, A., 868.
- Dimethyloximidohexoic acid (KIPPING and MACKENZIE), 1891, T., 586.
- Dimethyloxindole (WISPEK), 1883, A., 1096.
- Dimethyloxydihydrotoluinoxaline (HINSBERG), 1889, A., 280.
- Dimethyloxyquinizine. See Phenyl-dimethylpyrazolone.
- 3:5-Dimethylpentamethylenemethylcarbinol (PERKIN and STENHOUSE), 1892, T., 79.
- Dimethylpentanetetra-carboxylic acid (PERKIN and PRENTICE), 1891, T., 830.
- dissociation-constant of (WALKER), 1892, T., 704.
- Dimethylphenanthroline (V. MILLER), 1891, A., 1105.
- Dimethylphenylacetic acid,  $\alpha$ -nitro-, and its salts (WISPEK), 1883, A., 1096.
- Dimethylphenylenediamine (*amidodimethylaniline*), action of aldehydes on (CALM), 1885, A., 387.
- Dimethyl-*m*-phenylenediamine (GROLL), 1886, A., 347; (STAEDL and BAUER), 1886, A., 941.
- (?)2:4:6-*trinitro*- (VAN ROMBURGH), 1888, A., 1185.
- Dimethyl-*o*-phenylenediamine, 4-nitro- (HEIM), 1888, A., 1097.
- Dimethyl-*p*-phenylenediamine (MELDOLA), 1884, T., 108; (NÖLTING and BAUMANN), 1885, A., 385.
- action of, on aldehydes (NUTH), 1885, A., 784.
- action of, on ketones (VOGTHERR), 1892, A., 854.
- Dimethylphenylenediamine mercaptan (BERNTHSEN), 1889, A., 775.
- Dimethylphenylenediaminethiosulphonic acid (BERNTHSEN), 1889, A., 776.
- Dimethylphenylene-green and -safranine (ANON.), 1884, A., 539.
- p*-Dimethyl-*o*-phthalic acid (GUCCI and GRASSI-CRISTALDI), 1892, A., 872.
- Dimethylphthalide (KOTHE), 1889, A., 257.
- Dimethyl-*o*-phthalyl-di-*d*-ecgonine (DECKERS and EINHORN), 1891, A., 476.
- 2:4-Dimethylpicolinic acid (*dimethylpyridinecarboxylic acid*) (ALTAR), 1887, A., 378.
- $\alpha\alpha'$ -Dimethylpimelic acid (KIPPING and MACKENZIE), 1890, P., 117; 1891, T., 570, 577, 587; (PERKIN and PRENTICE), 1891, T., 832.
- $\omega\omega'$ -Dimethylpimelic acid, dissociation constant of (WALKER), 1892, T., 701.



- Dimethylpimelic acids**, stereoisomeric (ZELINSKY), 1892, A., 430.
- Dimethyl- $\alpha$ -pipecolylammonium iodide** (MERLING), 1891, A., 1508.
- Dimethylpiperazine** [b.p. 153°—158°] (SCHMIDT and WICHMANN), 1892, A., 212.
- $\gamma$ -Dimethylpiperazine** (LADENBURG), 1891, A., 1333.
- 1:2-Dimethylpiperidine** (*methyl- $\alpha$ -pipecoline*) (LADENBURG), 1883, A., 1154.  
behaviour of, towards hydrogen chloride (MERLING), 1891, A., 1506.
- Dimethylpiperidine**, action of bromine on (MERLING), 1887, A., 164.  
derivatives of (LADENBURG), 1885, A., 565.  
bromo-derivatives of (MERLING), 1884, A., 1385.
- Dimethylpiperidines**,  $\alpha\alpha'$ - and  $\alpha\gamma$ - (LADENBURG), 1887, A., 64, 65.
- Dimethylisopropenylcarbinol**. See Dimethyl- $\beta$ -allylcarbinol.
- Dimethylisopropylallylcarbinol** and its derivatives (DIEFF), 1883, A., 1076; (KONONOWITSCH), 1885, A., 497.
- 2:6-Dimethyl-4-propylhexahydropyridine** (*propyllupetidine*) (JAECKLE), 1888, A., 1104.
- 2:6-Dimethyl-4-propylpyridine** (*propyl-lutidine*) (JAECKLE), 1888, A., 1104.
- Dimethylpropylpyridinedicarboxylic acid** (*propyllutidinedicarboxylic acid*) (JAECKLE), 1888, A., 1104.
- Dimethylpropylsuccinic acid** (BISCHOFF), 1891, A., 829.
- Dimethylpyridine** (*lutidine*) (LADENBURG and ROTH), 1885, A., 994.  
isolation of (LADENBURG and ROTH), 1885, A., 815.  
thio- (GUTHZEIT and EPSTEIN), 1887, A., 920.
- 2:4-Dimethylpyridine** (HANTZSCH), 1883, A., 85; 1885, A., 397; (LADENBURG and ROTH), 1885, A., 557, 816; (LADENBURG), 1887, A., 59; (LUNGE and ROSENBERG), 1887, A., 499.  
*di*bromo- (PFEIFFER), 1887, A., 845.
- 2:5-Dimethylpyridine** (LUNGE and ROSENBERG), 1887, A., 499.
- 2:6-Dimethylpyridine** (LADENBURG and ROTH), 1885, A., 557; (EPSTEIN), 1885, A., 815; 1886, A., 258; (ROTH and LANGE), 1886, A., 558; (LADENBURG), 1887, A., 59; (COLLIE), 1891, T., 177.  
action of benzaldehyde on (SCHUSTER), 1892, A., 1360.
- 2:6-Dimethylpyridine**, oxidation of (COLLIE), 1891, T., 178.  
platinochloride (LEIVER), 1887, A., 378.  
4-chloro-, and its derivatives (CONRAD and EPSTEIN), 1887, A., 501.
- 3:5-Dimethylpyridine** (DÜRKOPF and GÖTTSCHE), 1890, A., 1002.
- Dimethylpyridinecarboxylic acid** (DÜRKOPF and GÖTTSCHE), 1890, A., 795.
- 2:4-Dimethylpyridine-3-carboxylic acid** (2:4-*lutidine-3-carboxylic acid*) (MICHAEL), 1885, A., 1244.
- 2:4-Dimethylpyridine-6-carboxylic acid** (*dimethylpicolinic acid*) (ALTAR), 1887, A., 378.
- 2:6-Dimethylpyridine-5-carboxylic acid** (2:6-*dimethylnicotinic acid*) (WEISS), 1886, A., 720.
- 2:4-Dimethylpyridine-3:5-dicarboxylic acid** (DÜRKOPF and GÖTTSCHE), 1890, A., 1002.
- 2:4-Dimethylpyridine-3:6- or -5:6-dicarboxylic acid** and its salts (MICHAEL), 1885, A., 62.
- 2:6-Dimethylpyridine-3:5-dicarboxylic acid** (ENGELMANN), 1886, A., 259.  
chloro- (CONRAD and EPSTEIN), 1887, A., 501.
- Dimethylpyridines**, isomeric separation of (OECHSNER DE CONINCK), 1883, A., 740.
- 2:4-Dimethylpyridinetricarboxylic acid** and its salts (HANTZSCH), 1883, A., 85.
- 2:6-Dimethylpyridone** (*lutidone*) (CONRAD and GUTHZEIT), 1887, A., 508; (COLLIE), 1891, T., 177.  
methiodide (CONRAD and ECKHARDT), 1889, A., 520.
- 2:6-Dimethylpyridone-3-carboxylic acid** (COLLIE), 1891, T., 176.
- 2:6-Dimethylpyridone-3:5-dicarboxylic acid** (CONRAD and GUTHZEIT), 1887, A., 500.
- 2:4-Dimethylpyridone**. See  $\psi$ -Lutidostyryl.
- Dimethylpyridylquinoline** (*lutidyl-quinoline*) (LEPETIT), 1887, A., 1053.
- 2:6-Dimethylpyridinetricarboxylic acid** (EPSTEIN), 1886, A., 258.
- 2:4-Dimethylpyrocoll** (MAGNANINI), 1889, A., 58.
- Dimethylpyrone** (FEIST), 1889, A., 957.
- Dimethylpyrrolidine** (CIAMICIAN and MAGNAGHI), 1885, A., 1243; (TAFEL), 1889, A., 977; (TAFEL and NEUGEBAUER), 1890, A., 1000.  
derivatives of (TAFEL), 1889, A., 977.

- Dimethylpyrrolidine methiodide** (CIAMICIAN and MAGNAGHI), 1885, A., 1243; (TAFEL and NEUGEBAUER), 1889, A., 1016.
- nitroso-** (TAFEL and NEUGEBAUER), 1890, A., 1001.
- Dimethylpyrrolidone** (TAFEL and NEUGEBAUER), 1889, A., 1016.
- 2:5-Dimethylpyrrolidyl-dimethyl-ammonium chloride** (MERLING), 1891, A., 1508.
- 2:5-Dimethylpyrroline** (KNORR), 1884, A., 1368; 1885, A., 995; (DENNSTEDT), 1889, A., 1209.
- $\alpha\beta$ -Dimethylpyrroline**, molecular weight of (MAGNANINI), 1890, A., 906.
- m-Dimethylpyrroline**, derivatives of (MAGNANINI), 1889, A., 408.
- as-Dimethylpyrroline**, derivatives of (MAGNANINI), 1889, A., 57.
- Dimethylpyrrolines** (DENNSTEDT), 1889, A., 1209.
- Dimethylpyrrolineacetic acid** (KNORR), 1887, A., 276.
- 2:4-Dimethylpyrroline-3-carboxyl-anilide** (KNORR), 1887, A., 277.
- Dimethylpyrrolinecarboxylic acid** [m.p. 197°] (KNORR), 1884, A., 1368.
- 2:4-Dimethylpyrroline-5-carboxylic acid** (MAGNANINI), 1889, A., 409.
- 2:5-Dimethylpyrroline-4-carboxylic acid and its salts** (KNORR), 1885, A., 994.
- 2:4-Dimethylpyrroline-3:5-dicarboxy-acetic acid** (KNORR), 1887, A., 276.
- 2:4-Dimethylpyrroline-3:5-dicarboxylic acid**, *mono-* and *di-*anilides of (KNORR), 1887, A., 277.
- imineanhydride of** (MAGNANINI), 1889, A., 58.
- 2:5-Dimethylpyrroline-3:4-dicarboxylic acid and its salts** (KNORR), 1885, A., 994.
- Dimethylpyreryl styryl ketone** [m.p. 166°] (DENNSTEDT), 1889, A., 1210.
- 2:4-Dimethylpyreryl styryl ketone** (DENNSTEDT), 1889, A., 1209.
- 2:5-Dimethylpyreryl-m-benzoic acid** (PAAL and SCHNEIDER), 1886, A., 559.
- Dimethylpyrylene diketone** (*di- $\psi$ -acetylpyrroline*) (CIAMICIAN and DENNSTEDT), 1885, A., 378; (CIAMICIAN and SILBER), 1885, A., 808, 993; 1886, A., 74.
- action of nitric acid on** (CIAMICIAN and SILBER), 1885, A., 993.
- nitro-** (CIAMICIAN and SILBER), 1886, A., 718.
- 2:5-Dimethylpyreryl-o-phenol** (PAAL and SCHNEIDER), 1886, A., 559.
- Dimethylquercetin**. See Rhamnetin.
- Dimethylquinitol** (v. BAEYER), 1892, A., 1183.
- Dimethylquinogen and its derivatives** (v. PECHMANN), 1888, A., 813.
- Dimethylquinol**. See Xyloquinol.
- 1:2'-Dimethylquinoline** (*o-toluquinaldine*), oxidation of (v. MILLER), 1891, A., 1095.
- ethiodide and methiodide** (MÖLLER), 1888, A., 298.
- hydrochloride** (v. MILLER), 1890, A., 1325.
- 1:3-Dimethylquinoline** (*xyloquinoline*), 4-amido- (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- 4-nitro-** (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- 1:4-Dimethylquinoline** (LELLMANN and ALT), 1887, A., 502.
- from p-xylydine sulphate** (MEYER), 1886, A., 161; (BEREND), 1886, A., 260.
- 3-amido-** (MARCKWALD), 1890, A., 1004.
- 2:2'-Dimethylquinoline** (*methylquinaldine*) (RIST), 1891, A., 329.
- 2:3'-Dimethylquinoline** (ROHDE), 1887, A., 974; 1889, A., 523; (ELIASBERG and FRIEDLÄNDER), 1892, A., 1107.
- 2:4-Dimethylquinoline** (BEREND), 1885, A., 274.
- 2:4'-Dimethylquinoline** (BEYER), 1885, A., 1246; 1886, A., 629; (COMBES), 1888, A., 505.
- oxidation of** (v. MILLER), 1891, A., 1096.
- derivatives of** (BEYER), 1886, A., 629.
- 3:4- or 2:3-Dimethylquinoline**, and its derivatives (BEREND), 1884, A., 1197.
- 3:4'-Dimethylquinoline** (*4'-methyl- $\beta$ -toluquinoline*) (v. MILLER), 1890, A., 1325.
- Dimethylquinolines and their derivatives** (DOEBNER and v. MILLER), 1884, A., 184.
- Dimethylquinolines**, 3':4', 4':1- and 2:4'- (KNORR), 1888, A., 1112.
- 1:2'-Dimethylquinoline-3-carboxylic acid** (PANAJOTOW), 1887, A., 382.
- o-p-Dimethylquinoline- $\alpha$ -carboxylic aldehyde** (PANAJOTOW), 1890, A., 1158.
- 1:3-Dimethylquinolinesulphonic acid** (PANAJOTOW), 1887, A., 382.
- 1:4-Dimethylquinolinesulphonic acids** (*1:4-xyloquinolinesulphonic acids*) (NÖLTING and FRÜHLING), 1889, A., 164.

- 1':2'-Dimethyl-4'-quinolone (*dimethyl- $\psi$ -quinoxyl*). See 4'-Hydroxy-1':2'-dimethylquinoline.
- 1':4'-Dimethylquinolone (*methyllepidone*) (KNORR), 1887, A., 159.  
 dyes obtained from (REISSERT), 1892, A., 498.  
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 bromo- (KNORR), 1887, A., 160.
- Dimethylquinolthiocarbamide (BAESLER), 1884, A., 1330.
- Dimethylquinoltrimethylammonium iodide (BAESSLER), 1884, A., 1329; 1887, A., 364.
- 1:3-Dimethylquinolyl- $\alpha$ -acrylic acid (PANAJOTOW), 1887, A., 382.
- Dimethylquinophenol (BEREND), 1884, A., 1197.
- Dimethylquinoxaline (*methyltoluquinoxaline*) (HINSBERG), 1886, A., 561.
- 3':4'-Dimethylquinoxaline, *tetrachloro*- (LEVY, WITTE and CURCHOD), 1890, A., 232.
- 3':4'-Dimethylquinoxaline-*m*-carboxylic acid (ZEHRA), 1891, A., 303.
- Dimethyl- $\delta\psi$ -quinoxalines,  $\alpha\beta$ - and  $\beta\gamma$ - (WEDDIGE), 1887, A., 1044.
- Dimethylracemic acid (FITTIG, DAIMLER and KELLER), 1889, A., 491; (BÖTTINGER), 1892, A., 698.
- Dimethylresorcinol (2:4-*dihydroxy-m-xylene*) (WISCHIN), 1891, A., 74.  
 bromo- and chloro- (WISCHIN), 1891, A., 74.
- Dimethylresorcyll pentadecyl ketone (KRAFFT), 1888, A., 1087.
- Dimethyl- $\alpha$ -resorecylic acid, amido- and nitro- (MEYER), 1888, A., 148.
- Dimethyl- $\beta$ -resorecylic acid (v. PECHMANN and DUISBERG), 1884, A., 67; (v. PECHMANN and COHEN), 1884, A., 1331.
- Dimethylrubbadin (SCHALL and UHL), 1892, A., 1077.
- Dimethylsafranine hydrochloride (MENTON), 1891, A., 1205.
- p*-Dimethylstilbene (ANSCHÜTZ and WIRTZ), 1885, T., 901; A., 1064.
- Dimethylstilbene sulphide, *diamido*- (ANSCHÜTZ and SCHULTZ), 1889, A., 602.
- Dimethylstrychnine (TAFEL), 1890, A., 1448.
- iso*Dimethylstrychnine (TAFEL), 1891, A., 1264.
- 3-Dimethylsuccinamic acid,  $\alpha$ -dichloro- (OTTO and HOLST), 1890, A., 958.
- Dimethyl*iso*succinamide (FRANCHIMONT), 1886, A., 449.
- Dimethylsuccinic acid (BISCHOFF and JAUNSNICKER), 1891, A., 290.
- as*-Dimethylsuccinic acid (LEVY and ENGLÄNDER), 1888, A., 133; (BARNSTEIN), 1888, A., 135; (BISCHOFF and v. KÜHLBERG), 1890, A., 742.  
 an oxidation product of copaiba balsam (LEVY and ENGLÄNDER), 1886, A., 250.  
 formation of (HELL and ROTHBERG), 1889, A., 959.
- p-s*-Dimethylsuccinic acid (*hydrompyrocinchonic acid*) (BISCHOFF and RACH), 1885, A., 885; 1886, A., 1012; (OTTO and RÖSSING), 1888, A., 45.
- s*-Dimethylsuccinic acid,  $\alpha$ -dichloro-substitution products of (OTTO and HOLST), 1890, A., 957.
- Dimethylsuccinic acids, action of bromine on (HELL and ROTHBERG), 1889, A., 371.  
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*anti*- and *p-s*- (BISCHOFF and VOIT), 1889, A., 490.  
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- s*-Dimethylsuccinic acids (OTTO and BECKURTS), 1885, A., 754; (BISCHOFF and RACH), 1885, A., 885; 1886, A., 1012; (BISCHOFF and VOIT), 1889, A., 490; 1890, A., 743.  
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- as*-Dimethylsuccinic anhydride (BARNSTEIN), 1888, A., 135.
- s*-Dimethylsuccinic anhydride,  $\alpha$ -dichloro- (OTTO and HOLST), 1890, A., 957.  
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- Dimethylsuccinimidine hydrochloride (PINNER), 1883, A., 1089.
- Dimethylsuccinonitrile (HELL and ROTHBERG), 1889, A., 959.
- s*-Dimethylsulphonamide (FRANCHIMONT), 1885, A., 969.



- s*-Dimethylsulphonamide, *dinitro*- (FRANCHIMONT), 1885, A., 969.
- Dimethylsulphonamides, action of nitric acid on (FRANCHIMONT), 1885, A., 969.
- Dimethylsulphonedicarboxylic acid. See Sulphonediacetic acid.
- Dimethylsulphone-diethyl- and -dimethyl-methanes (BAUMANN and KAST), 1889, A., 1233.
- Dimethylsulphonemethylethylmethane (BAUMANN and KAST), 1889, A., 1233.
- Dimethyl-tartaramide and -tartarimide, *tetrachloro*- (LEVY, WITTE and CURCHOD), 1890, A., 233.
- Dimethyltaurine, preparation of (JAMES), 1885, T., 370.
- $\beta$ -Dimethyltaurine and dimethyltaurocarbamic acid (GABRIEL), 1890, A., 128.
- Dimethyltaurocyamine, formation of (JAMES), 1885, T., 374.
- 2:5-Dimethylterephthalic acid (CLAUS), 1890, A., 982.
- 2:6-Dimethylterephthalic acid (CLAUS), 1890, A., 981.
- Dimethyl- $\alpha$ -tetrahydronaphthylamine (BAMBERGER and HELWIG), 1889, A., 892.
- Dimethyl- $\beta$ -tetrahydronaphthylamines, aromatic and alicyclic (BAMBERGER and MÜLLER), 1889, A., 890, 891.
- 1:2-Dimethyl- $\Delta^2$ -tetrahydropyridine (LIPP), 1892, A., 1243.
- Dimethyltetrahydroquinoline (FISCHER and STECHE), 1887, A., 976; (ZATTI and FERRATINI), 1892, A., 614.
- 1:2'-Dimethyltetrahydroquinoline (DOEBNER and V. MILLER), 1884, A., 183; (MÖLLER), 1888, A., 297.
- 1:3-Dimethyltetrahydroquinoline (BAMBERGER and WULZ), 1891, A., 1255.
- 1':3'-Dimethyltetrahydroquinoline (FISCHER and STECHE), 1887, A., 976.
- 1:4-Dimethyltetrahydroquinoline (BEREND), 1886, A., 261.
- 1':4'-Dimethyltetrahydroquinoline (KNORR and KLOTZ), 1887, A., 279.
- Dimethyltetrahydroquinolinium hydr-oxide (FEER and KOENIGS), 1885, A., 1245.
- $\alpha\beta$ '-Dimethyltetramethylenediamine (CIAMICIAN and ZANETTI), 1890, A., 1155; 1891, A., 1503.
- as*-Dimethyltetraphenylethane (WILLGERODT and SCHIFF), 1890, A., 959.
- Dimethylthalline iodide, quaternary (SKRAUP), 1886, A., 80.
- Dimethylthetin-*mono*- and -*di*-carb-oxylic acids (DELISLE), 1892, A., 1433.
- $\alpha\alpha$ '-Dimethylthiazole (HANTZSCH), 1888, A., 574.
- $\alpha\mu$ -Dimethylthiazole (HANTZSCH), 1889, A., 723.
- $\beta\mu$ -Dimethylthiazole (HUBACHER), 1891, A., 222.
- $\alpha\mu$ -Dimethylthiazole- $\beta$ -carboxylic acid (RUBLEFF), 1891, A., 224.
- Dimethylthiocarbamide (HECHT), 1890, A., 477.
- as*-Dimethylthiocarbamide (SPICA and CARRARA), 1892, A., 216.
- Dimethylthioformaldinium iodide (WOHL), 1887, A., 28.
- Dimethylthiohydantoin (MARCKWALD, NEUMARK and STELZNER), 1892, A., 151.
- Dimethylthiohydantoins,  $\alpha$ - and  $\beta$ - (ANDREASCH), 1888, A., 47.
- Dimethylthionine (BERNTHSEN and GOSKE), 1887, A., 667.
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- Dimethylthiophen (*thiozen, thioxylene*), method of obtaining (SCHULZE), 1885, A., 251.
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- 2:3-Dimethylthiophen (PAAL), 1887, A., 1101; (GRÜNEWALD), 1888, A., 48.
- 2:4-Dimethylthiophen and its derivatives (ZELINSKY), 1887, A., 921.
- 2:5-Dimethylthiophen, synthesis of (PAAL), 1885, A., 1205.
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- 3:4-Dimethylthiophen (ZELINSKY), 1888, A., 939.
- 2:4-Dimethylthiophen-5-carboxylic acid (GATTERMANN), 1888, A., 575.
- Dimethylthioresorcinol (OBERMEYER), 1888, A., 124.
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- Dimethyldithioxamide (WALLACH and REINHARDT), 1891, A., 1008.
- Dimethyltolenylamidine salts (GLOCK), 1888, A., 1290.
- Dimethyl-*o*-toluidine, action of form-aldehyde on (ALEXANDER), 1892, A., 1320.
- Dimethyl-*p*-toluidine, action of, on ethylenic bromide (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1317.

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- Dimethyltoluindamine thiosulphonate** (BERNTSEN), 1889, A., 778.
- Dimethyltoluquinoline**. See Trimethylquinoline.
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- Dimethyltrimethylenedisulphone-sulphide** (CAMPS), 1892, A., 593.
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- Dimethyltropine**, decomposition of, by heat (LADENBURG), 1883, A., 672.
- Dimethylumbellie acids**,  $\alpha$ - and  $\beta$ - (*dihydroxydimethylcinnamic acids*) (WILL), 1884, A., 68; (WILL and BECK), 1886, A., 880.
- $\alpha\beta$ -Dimethylumbelliferone** (v. PECHMANN and DUISBERG), 1884, A., 67.
- $\beta$ -6-Dimethylumbelliferone** (v. PECHMANN and COHEN), 1885, A., 56.
- $\alpha\beta$ -Dimethylumbelliferonecarboxylic acid** (v. PECHMANN), 1892, A., 432.
- Dimethyluracil** (BEHREND; HOFFMANN), 1890, A., 31.  
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- Dimethyluric acids** (FISCHER), 1884, A., 1308.
- $\alpha$ -Dimethylvalerolactone** (ANSCHÜTZ and GILLET), 1888, A., 1272.
- $\beta$ -Dimethylvalerolactone** (*isoheptolactone*) (FITTIG and ZANNER), 1890, A., 590.
- Dimethylxanthone** (WEBER), 1892, A., 1093.
- Dimethyl-*o*-xylidine** (MENTON), 1891, A., 1205.
- Dimethylxylidines** (vOM BAUR and STAEDEL), 1883, A., 579.
- Dimethylxyloquinols**, *o*-, *m*- and *p*- (NÖLTING and WERNER), 1891, A., 210.
- Dimethylxylylphosphine** (CZIMATIS), 1883, A., 58.
- $\alpha$ -Dinaphthadiquinone** (ELSBACH), 1883, A., 70.
- $\beta$ -Dinaphthalene oxide** (WALDER), 1883, A., 209.
- $\beta$ -Dinaphthenylimidine** (PINNER), 1892, A., 1110.
- $\alpha$ -Dinaphthilbenzil** (BANDROWSKI), 1889, A., 147.
- $\alpha$ -Dinaphthol** (JULIUS), 1888, A., 161.
- $\beta$ -Dinaphthol** (WALDER), 1883, A., 208; (JULIUS), 1888, A., 161.  
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- Dinaphthols**, isomeric, derivatives of (OSTERMAYER and ROSENHEK), 1885, A., 171.
- $\alpha$ -Dinaphtholbenzylidenesulphonic acid**, barium salt of (KAFKA), 1891, A., 721.
- $\beta$ -Dinaphtholdisulphonic acid**, barium salt of (JULIUS), 1888, A., 161.  
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- $\beta$ -Dinaphtholtetrasulphonic acid**, barium salt of (JULIUS), 1888, A., 161.
- Dinaphthoxanthone** (v. KOSTANECKI), 1892, A., 1099.
- $\beta\beta$ -Dinaphthoylearbamide** (EKSTRAND), 1887, A., 840.
- Dinaphthoylhydroxamic acids**,  $\alpha\alpha$ -,  $\beta\beta$ -, and  $\alpha\beta$ - (EKSTRAND), 1887, A., 840.
- $\alpha\alpha$ -Dinaphthyl** (WALDER), 1883, A., 209; (WEGSCHEIDER), 1884, A., 1185.
- $\alpha\beta$ -Dinaphthyl** (WEGSCHEIDER), 1884, A., 1185.
- Dinaphthyl derivatives** (JULIUS), 1888, A., 161.
- Dinaphthyl**, *diamido*-, and its derivatives (NIETZKI and GOLL), 1886, A., 245; (JULIUS), 1887, A., 56.  
*mono-* and *di-nitro-* (JULIUS), 1887, A., 56.
- $\beta\beta$ -Dinaphthyl** (*isodinaphthyl*) (WEGSCHEIDER), 1884, A., 1185.  
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- Dinaphthyl diethyl ether**. See Diethoxydinaphthyl.
- $\beta$ -Dinaphthyl ketone**, boiling point of (SCHWEITZER), 1891, A., 1240.
- $\beta$ -Dinaphthyl ketone oxide** (CLAUS and RUPPEL), 1890, A., 510.  
*di-bromo*-, and *dinitro-* (CLAUS and RUPPEL), 1890, A., 510.
- Dinaphthylamidinecarbamide** (PINNER), 1892, A., 1008.
- Di- $\alpha$ -naphthylamidocyanuric chloride** (FRIES), 1886, T., 315, 740.
- Dinaphthyl*diamido-o*-diazothioles**,  $\alpha$ - and  $\beta$ - (HECTOR), 1890, A., 526, 527.  
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- $\alpha\beta$ -Dinaphthylamine**, behaviour of, when combining with diazobenzene (MATTHES), 1890, A., 385.
- Di- $\beta$ -naphthylamine** (KLOPSCH), 1885, A., 990; (RIS), 1886, A., 947; 1888, A., 57.

- Di- $\beta$ -naphthylamine**, boiling point of (SCHWEITZER), 1891, A., 1240.
- Di- $\beta$ -naphthylamine**, *tetrabromo-* (RIS), 1888, A., 57.
- tetra-* and *octo-bromo-* (RIS), 1888, A., 57, 58.
- di-* and *tetra-nitro-* (RIS and WEBER), 1884, A., 752; (RIS), 1888, A., 58.
- hexanitro-* (RIS), 1888, A., 58.
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- thio-* (RIS), 1886, A., 1036; (KYM), 1889, A., 51.
- Dinaphthylamines**,  $\alpha\alpha$ -,  $\beta\beta$ -, and  $\alpha\beta$ - (BENZ), 1883, A., 594.
- dithio-*, two isomeric (KYM), 1889, A., 51.
- $\beta$ -Dinaphthylcarbamic chloride** (KYM), 1890, A., 633, 993; (KÜHN and LANDAU), 1890, A., 634, 1311.
- thio-* (PASCHKOWETZKY), 1892, A., 165.
- u*-**Di- $\beta$ -naphthylcarbamide**, *thio-* (PASCHKOWETZKY), 1892, A., 166.
- Dinaphthylcarbamides**,  $\alpha$ - and  $\beta$ -, *tetra-nitro-* (PERKIN), 1892, T., 467.
- Dinaphthylcarbazole** (NIETZKI and GOLL), 1886, A., 246.
- $\beta$ -Dinaphthylcarbazole** (RIS), 1886, A., 1036.
- $\alpha$ -Dinaphthylдикетодиhydro-*p*-diazine** (ABENIUS), 1890, A., 269.
- $\alpha$ -Dinaphthyl- $\alpha\gamma$ -дикетопиперазине** (BISCHOFF and NASTVOGEL), 1889, A., 1015; (BISCHOFF and HAUSDÖRFER), 1890, A., 1309.
- $\beta$ -Dinaphthyl- $\alpha\gamma$ -дикетопиперазине** (BISCHOFF and HAUSDÖRFER), 1890, A., 1309; 1892, A., 1342.
- $\beta$ -Dinaphthyl- $\alpha\gamma$ -диметил- $\beta\delta$ -дикетопиперазине** (BISCHOFF and HAUSDÖRFER), 1892, A., 1337.
- as*-**Di- $\beta$ -naphthyldiphenylcarbamide**, *thio-* (PASCHKOWETZKY), 1892, A., 165.
- Di- $\beta$ -naphthyldiphenylcarbamides**, *s*- and *as*- (PASCHKOWETZKY), 1892, A., 166, 167.
- Dinaphthyldiquinone**, derivatives and constitution of (KORN), 1885, A., 392.
- Dinaphthyldi-*p*-tolylamine** (WITT), 1888, A., 492.
- Dinaphthylenamine**, and its derivatives (WALDER), 1883, A., 209.
- Dinaphthylene ether** (CLAUS and VOLZ), 1886, A., 247.
- Dinaphthyleneoxidetetrasulphonic acid**, constitution of (HODGKINSON and LIMPACH), 1891, T., 1099; P., 135.
- Dinaphthylenephenylamine** (WALDER), 1883, A., 209.
- $\beta$ -Dinaphthylenic oxide**, new method of preparation of (HODGKINSON and LIMPACH), 1891, T., 1096; P., 135.
- tetrabromo-* (HODGKINSON and LIMPACH), 1891, T., 1100.
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- Dinaphthylethanes**,  $\alpha$ - and  $\beta$ - (BAMBERGER and LODTER), 1888, A., 376.
- Di- $\beta$ -naphthylethylamine** (RIS), 1888, A., 57.
- Di- $\alpha$ -naphthylethylenediamine**, action of chloracetic and oxalic acids on (BISCHOFF and NASTVOGEL), 1890, A., 1162.
- Di- $\beta$ -naphthylethylenediamine** (HAUSDÖRFER), 1890, A., 1333.
- Di- $\alpha$ -naphthylformamidine** (COMSTOCK and WHEELER), 1892, A., 706.
- s*-Dinaphthylhydrazine** (*hydrazo-naphthalene*) (NIETZKI and GOLL), 1886, A., 245.
- Dinaphthylie hydrochloride diimido-** (JULIUS), 1887, A., 56.
- picrates* (WEGSCHEIDER), 1891, A., 216.
- $\alpha\beta$ -Dinaphthylie sulphide** (KRAFFT), 1890, A., 1312.
- disulphide*, *diamido-* ( $\text{NH}_2\text{:S}=1\text{:}3'$ ) (EKBOM), 1891, A., 573.
- disulphide*, *diamido-* ( $\text{NH}_2\text{:S}=1\text{:}4'$ ) (EKBOM), 1890, A., 994.
- $\alpha\alpha$ -Dinaphthylie sulphoxide** (EKSTRAND), 1885, A., 171; (KRAFFT), 1890, A., 1311.
- Dinaphthylie** (NIETZKI and GOLL), 1886, A., 245.
- Di- $\beta$ -naphthylketoneoxidesulphonic acid**, barium salt of (CLAUS and RUPPEL), 1890, A., 510.
- Dinaphthylmethane** (CLAUS and RUPPEL), 1890, A., 511.
- $\beta$ -Dinaphthylmethylamine** (RIS), 1888, A., 57.
- thio-* (KYM), 1890, A., 1306.
- Dinaphthylmethylcyanidine** (PINNER), 1892, A., 1110.
- Dinaphthynaphthalene** (ROUX), 1888, A., 1305.
- $\alpha$ -Dinaphthylparabanic acid** (EVERS), 1888, A., 602.
- $\beta$ -Dinaphthylphenylcarbamide** (GEBHARDT), 1885, A., 384; (KÜHN and LANDAU), 1890, A., 634.
- thio-* (PASCHKOWETZKY), 1892, A., 166.
- $\alpha$ -Dinaphthylphenylcarbinol** (ELBS and STEINKE), 1886, A., 947; (ELBS), 1887, A., 943.



- $\beta$ -Dinaphthyl-*p*-phenylenediamine** and its derivatives (RUEFF), 1889, A., 894.
- Dinaphthylphenylmethane** (ELBS), 1887, A., 943.
- iso***Dinaphthylquinone** (STAUB and SMITH), 1885, T., 104.
- $\alpha$ -Dinaphthylpiperazine** (BISCHOFF), 1889, A., 1011.
- $\beta$ -Dinaphthylpiperazine** (BISCHOFF and HAUSDÖRFER), 1890, A., 1333.
- Dinaphthylsulphone** (v. HOFMANN), 1884, A., 1362.
- $\beta\beta$ -Dinaphthylsulphone** (KRAFFT), 1890, A., 1311.
- Dinaphthylsulphones**,  $\alpha\alpha$ - and  $\alpha\beta$ - (KRAFFT), 1890, A., 1312.
- Dinaphthylthiocarbamide**, bases from (EVERS), 1888, A., 600.
- $\beta$ -Dinaphthylthio-carbazide and -carbazone** (FREUND), 1892, A., 513.
- Dinaphthylthiohydantoins**,  $\alpha$ - and  $\beta$ - (EVERS), 1888, A., 602.
- Dinicotinic acid** (*pyridine-3:5-dicarboxylic acid*) (HANTZSCH and WEISS), 1886, A., 478.
- 2:6-dichloro- (GUTHZEIT and DRESSEL), 1891, A., 940.
- n*-Dinitriles** (HENRY), 1886, A., 860.
- Dinitrosaclys** (HOLLEMAN), 1892, A., 971.
- Dioctioic acid** (*hexadecioic acid*) (CANZONERI), 1884, A., 462.
- Dioctyl** (*n-hexadecane*) (LACHOWICZ), 1884, A., 166; (KRAFFT), 1886, A., 998.
- Dioctylamine** (*hexadecylamine*) and *diisooctylamine* (MERZ and GASIOROWSKI), 1884, A., 984, 985.
- conversion of palmitonitrile into (KRAFFT and MOYE), 1889, A., 688.
- Diol alcohol and diolic acid** (SHIMOMYAMA), 1888, A., 1206.
- Diopside** from Nordmarken (FLINK), 1886, A., 777.
- from Zermatt (STRENG), 1885, A., 1118.
- Dioptase** from the Corderillas of Chili (BAUER), 1883, A., 446.
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- Diorite**, analysis of (DOELTER), 1883, A., 720.
- Diorites** of Montreal (HARRINGTON), 1883, A., 561.
- Diorite dyke** in Orange Co., New York (KEMP), 1888, A., 1045.
- Dioritic rocks** of Klausen in the Tyrol (TELLER and JOHN), 1883, A., 1069.
- Diosmin** (SPICA), 1888, A., 1310.
- Diosphenol** (SHIMOMYAMA), 1888, A., 1205.
- Diospyros virginiana***, crystalline principle from the bark of (SCHLEIF), 1891, A., 324.
- Dioxaethyline** (WALLACH), 1883, A., 50.
- Dioxal-*p*-toluidide** and **dioxanilide** (ABENIUS), 1890, A., 525.
- Dioximes**, action of phenylhydrazine on (POLONOWSKY), 1888, A., 366.
- Di-*m*-oxybenzoid** (SCHIFF), 1883, A., 335.
- Dioxyberberine** (PERKIN), 1890, T., 1003, 1087.
- constitution of (PERKIN), 1890, T., 1008.
- action of alkalis on (PERKIN), 1890, T., 1089.
- Dioxydehydronicotine**, *dibromo-* (PINNER), 1892, A., 1497.
- Dioxy-*m*-diazine**. See Uracil.
- Dioxydibenzylidene**/*lithio*xamide (EPHRAIM), 1891, A., 831.
- Dioxydiethylaniline** (HOLZMANN), 1887, A., 723.
- Dioxydimethylaniline** (MERZ and WEITH), 1886, A., 792.
- Dioxydimethylanthraquinone** (*dimethylanthraflavic acid*) and its acetyl-derivative (v. KOSTANECKI and NIEMENTOWSKI), 1885, A., 1240.
- Dioxydiphenylene**, *perchloro-* (HUGOUNENQ), 1889, A., 1150.
- Dioxymethyl-*m*-diazine**. See Methyluracil.
- Dioxymethylene-2'-methylquinoline** (HABER), 1891, A., 705.
- Dioxymethylenephenylglyoxylic acid** (CIAMICIAN and SILBER), 1890, A., 966.
- hydrazone of (GARELLI) 1891, A., 711.
- Dioxymethylenephenyloximidoacetic acid** (GARELLI), 1892, A., 327.
- Dioxyphenazine** (NIETZKI and HASTERLIK), 1891, A., 944.
- Dioxyphenylmethylpyrazoleoxime** (*isomethyldioxyquinizine*) (KNORR), 1884, A., 1379.
- Dioxyretistene** (BAMBERGER), 1884, A., 1040; (EKSTRAND), 1884, A., 1041.
- action of barium hydroxide, and of acetic anhydride on (EKSTRAND), 1884, A., 1041.
- Dioxystyryl-*m*-pyrazole**. See Styrylhydantoin.
- Dioxytetrazotic acids** (LOSSEN), 1891, A., 1038.
- Dioxythiodiphenylimide** (BERNTHSEN), 1886, A., 55.
- "**Dioxythiophenetoil**" (TASSINARI), 1892, A., 1316.
- Dioxytrimethylpyrrole** (WEIL), 1886, A., 528.

- Dipalmitylcarbinylacetate** (KIPPING), 1890, T., 987.
- Dipentadecyl ketone.** See Palmitone.
- Dipentamethylbenzenethiocarbamide** (V. HOFMANN), 1885, A., 1129.
- Terpene** and its derivatives. See Terpenes.
- Dipentenylbenzene** (DAFERT), 1883, A., 1094.
- Diphellandrene** (PESCI), 1886, A., 1038.
- Diphenacyl** (*diphenylethylene diketone; succinophenone*) (CLAUS and WERNER), 1887, A., 827; (AUGER), 1888, A., 952; (KAPF and PAAL), 1889, A., 147.
- Diphenacylacetic acid** (KUES and PAAL), 1887, A., 261.
- Diphenacyldiphenyldihydrazone** (KAPF and PAAL), 1889, A., 147.
- Diphenacylmalonic acid** (KUES and PAAL), 1887, A., 261.
- Diphenacyl-*p*-toluidine** (LELLMANN and DONNER), 1890, A., 525.
- Diphenamic acid and diphenamide** (WEGERHOFF), 1888, A., 1201; (GRAEBE and AUBIN), 1889, A., 145.
- Diphenanthryleneazotide** (JAPP and BURTON), 1887, T., 101.  
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- "Diphenesuccindone"** and its derivatives (ROSER), 1888, A., 1301.
- 3:3'-Diphenic acid** (GRIESS), 1888, A., 589.  
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*p*-nitro- (STRASBURGER), 1884, A., 329.
- Diphenic anhydride** (GRAEBE and AUBIN), 1889, A., 145.  
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- Diphenic chloride** (GRAEBE and AUBIN), 1889, A., 145.
- Diphenimide** (WEGERHOFF), 1888, A., 1200; (GRAEBE and AUBIN), 1889, A., 145.
- o*-Diphenol** (HODGKINSON and MATTHEWS), 1883, T., 169; (LIMPRICHT), 1891, A., 930.
- p*-Diphenol**, derivatives of (SCHÜTZ), 1889, A., 402.  
3:3'-diamido- and tetramido- (KUNZE), 1889, A., 262.  
3:3'-dinitro- (KUNZE), 1889, A., 262.
- Diphenoltrichlorethane** (ELBS and HOERMANN), 1889, A., 997.
- p*-Diphenoldicarboxylic acid** (SCHMITT and KRETZSCHMAR), 1888, A., 56.
- Diphenoldihydrazine hydrochloride** (KUNZE), 1889, A., 262.
- Diphenoldisulphonic acid** (LIMPRICHT), 1891, A., 930.
- $\gamma$ -Diphenoxypropylamine** (LOHMANN), 1891, A., 1467.
- Diphenyl**, occurrence of, in coal-tar oil (SCHULZE), 1884, A., 1030.  
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- Diphenyl**, *o*-amido-, preparation of (HIRSCH), 1892, A., 1198.  
*diamido-o*- [m.p. 81°] (TÄUBER), 1891, A., 570.  
*diamido*- [m.p. 125°] (BERNTHSEN), 1886, A., 471.  
*m:m*-diamido- [m.p. 257°] (BRUNNER and WITT), 1887, A., 673.  
*o:p*-diamido- [m.p. 45°]. See *iso*-Benzidine.  
*p:p*-diamido- [m.p. 122°]. See Benzidine.  
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*di*bromo-*mono*- and *tri*-nitro- (LELLMANN), 1883, A., 343.  
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*chloro*diamido- (MENTHA and HEUMANN), 1887, A., 247.  
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- Diphenyl, difluoro-** (WALLACH and HEUSLER), 1888, A., 362.  
**1:2-dinitro-** (TÄUBER), 1891, A., 570.  
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**Diphenyl ketones, alkylated, and their conversion into alkylated anthracenes** (CLAUS and ELBS), 1885, A., 1065.  
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**Diphenyl tetraketone** (ABENIUS and SÖDERBAUM), 1892, A., 69.  
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**Diphenylacetoneitrile** (ANSCHÜTZ and ROMIG), 1886, A., 1034; (ZINSSER), 1892, A., 344; (MICHAEL and JEANPRÊTRE), 1892, A., 1094.  
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**Diphenylacetylene (tolane), hydration of** (BÉHAL), 1888, A., 959.  
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**Diphenylacetylene (tolane), p-dinitro-** (ELBS and BAUER), 1887, A., 152.  
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 **$\alpha\beta$ -Diphenyl- $\mu$ -amidoazole** (ANSCHÜTZ and GELDERMANN), 1891, A., 725.  
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**Diphenylamine-o-carboxylic acid**, di-nitro-, and its derivatives (JOURDAN), 1885, A., 988.  
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**Diphenylaminephthalein** and its derivatives (PIUTTI), 1884, A., 451; 1885, A., 783.  
**"Diphenyl-ψ-amphiphenacylnitrile"** and its nitroso- and nitro-derivatives (MÖHLAU), 1885, A., 560.  
**Diphenylisoamylsemithiocarbazide** (PHILIPS), 1889, A., 1159.  
**Diphenylanthracene dibromide** and dihydride (LINEBARGER), 1892, A., 720.  
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**Diphenylasparagine** (PIUTTI), 1886, A., 621.  
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**Diphenylisobenzylidenemaleimidine** (COHN), 1892, A., 486.  
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**1:3-Diphenylbenzylidene-5-pyrazolone** (KNORR and KLOTZ), 1887, A., 1121.

- Diphenylbenzylmaleide** and its derivatives (COHN), 1892, A., 484.
- Diphenylbenzyl-maleimidine** and -maleinethylimidine (COHN), 1892, A., 484, 485.
- Diphenylbenzylphosphine** chloride (DÖRKEN), 1888, A., 832.  
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- Diphenylbenzylsemithiocarbazide** (PHILIPS), 1889, A., 1159.
- Diphenylbenzylthiourea** (WERNER), 1892, P., 97.
- Diphenylbismuthine bromide** (MICHAELIS and MARQUARDT), 1889, A., 1061.
- Diphenylbromobenzylidenemaleide** (COHN), 1892, A., 483.
- Diphenylbromodinitroresoreinol** (JACKSON and WARREN), 1891, A., 1026.
- Diphenylbromotoluinoxaline** (HARTMANN), 1890, A., 976.
- Diphenyl-butane** and -butylene (FREUND and IMMERWAHR), 1890, A., 1409, 1408.
- Diphenylbutylenediamine** (COLSON), 1888, A., 139.
- Diphenylisobutylglyoxaline** (JAPP and WYNNE), 1886, T., 467.
- Diphenylisobutylsemithiocarbazide** (PHILIPS), 1889, A., 1159.
- Diphenylbutyric acid** (JANSSEN), 1889, A., 596.
- Diphenylbutyrolactone** (AUGER), 1888, A., 952.
- Diphenylbutyronitrile** (JANSSEN), 1889, A., 596.
- Diphenylcarbamic acid**, thio-, derivatives of (FRAENKEL), 1885, A., 1130.
- Diphenylcarbamic chloride**, thio- (PASCHKOWETZKY), 1892, A., 164.
- s-Diphenylcarbamide** (*carbanilide*) (HENTSCHEL), 1883, A., 1107.  
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- s-Diphenylcarbamide**, *m-amido-* (LEUCKART), 1890, A., 760.  
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*m-nitro-* (LEUCKART), 1890, A., 760.  
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*m-dinitro-* (LOSANITSCH), 1883, A., 583.
- Diphenylcarbamide**, *p-bromo-* (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- Diphenylcarbamide**, *m-* and *p-chloro-* (GOLDSCHMIDT and BARDACH), 1892, A., 979.
- as-Diphenylcarbamide**, thio- (PASCHKOWETZKY), 1892, A., 164.
- Diphenylcarbamidedicarboxylic acid** (TRAUBE), 1883, A., 194.
- Diphenylcarbazine** (SKINNER and RUHEMANN), 1888, T., 551; A., 274.  
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- Diphenylcarbazone** (HELLER), 1891, A., 1212.
- Diphenylcarbinol**. See Benzhydrol.
- p-Diphenylcarboxyanilide** (LEUCKART), 1890, A., 759.
- o-Diphenylcarboxylic acid**, condensation of (GRAEBE and AUBIN), 1887, A., 589.
- Diphenylcarboxylic acid**, *di*bromo- [m.p. 212°] (HOLM), 1883, A., 922.
- Diphenylcarboxylic acids**, *m-* and *p-* and salts of (BARTH and SCHREDER), 1883, A., 468.
- Diphenylcarboxylic acids**, *di*bromo- [m.p. 204° and 232°] (CARNELLEY and THOMSON), 1885, T., 589; P., 88.
- Diphenyltrichlorethane** and its homologues (ELBS and FÖRSTER), 1889, A., 713.
- Diphenyldichlorodiketo-p-diazine** (ABENIUS), 1890, A., 526.
- Diphenylchloroformamide**, compounds from (LELLMANN and BENZ), 1891, A., 1214.
- Diphenylchloromethyl dimethylcarbinol** (WILLGERODT and GENIESER), 1888, A., 811.
- αβ-Diphenylcinchonic acid** (PFITZINGER), 1889, A., 413.
- Diphenylcrotonaldehyde** (KLINGEMANN), 1892, A., 1002.
- Diphenylcyanamide** (WERNER), 1892, P., 96.
- Diphenylcyanethyldiene** (CHAUTARD), 1888, A., 810.
- Diphenylcyanine chloride** (KLASON; v. MEYER), 1887, A., 363.
- Diphenyltricyanocarboxylic acid** (KRAFFT and KOENIG), 1890, A., 1252.
- Diphenylcyanotriazole** (BLADIN), 1889, A., 702.
- Diphenyl-o-isocyanuric acid** (v. HOFMANN), 1886, A., 234.
- Diphenyldiaceto-o-tolylenediamine** (BISTRZYCKI and CYBULSKI), 1891, A., 694.
- Diphenyldiacetylene** (HOLLEMAN), 1888, A., 261.

- Diphenyldiisouamyltetrazone** (PHILIPS), 1889, A., 1159.
- 2:6-Diphenyl-*m*-diazine**, 4-amido-, formation of (SCHWARZE), 1890, A., 1159.
- s-Diphenyldibenzylsuccinonitrile** (CHALANEY and KNOEVENAGEL), 1892, A., 619.
- Diphenyldibutynyl ketone**, *p*-dinitro- (EINHORN and GEHRENBECK), 1890, A., 162.
- Diphenyldiisobutyltetrazone** (PHILIPS), 1889, A., 1159.
- Diphenyldiisobutyryl glyoxime** (AUWERS and MEYER), 1888, A., 598.
- Diphenyl-*o*-*p*-dicarboxylic acid** (REULAND), 1890, A., 167.
- Diphenyl-*m*-dicarboxylic acid**, *dichloro*- (STOLLE), 1888, A., 700.
- Diphenyl- $\alpha$ -diethyl- $\beta\delta$ -diketopiperazines** (NASTVOGEL), 1889, A., 1013; 1890, A., 1160.
- Diphenyldiethylene** (REBUFFAT), 1885, A., 1137.  
and its derivatives (REBUFFAT), 1891, A., 76.
- Diphenyldiethyl-oxamide and -thiocarbamide** (NEUBERT), 1886, A., 874, 873.
- s-Di-*p*-phenyldiethylthiocarbamide** (MAINZER), 1883, A., 1106.
- p*-Diphenyldiguanide** (EMICH), 1891, A., 1180.
- Diphenyldihydrazimethylene** (CURTIUS and THUN), 1891, A., 1357.
- Diphenyldihydrazine** (ARHEIDT), 1887, A., 958.
- 2:3-Diphenyl-5:6-dihydropyrazine** (MASON), 1887, A., 493; 1889, T., 98.
- aa'*-Diphenyldihydropyridine- $\gamma$ -carboxylic acid** (PAAL and STRASSER), 1888, A., 62.
- 3':4'-Diphenyldihydroquinoxaline** (FISCHER), 1891, A., 747.
- Diphenyldihydroxylamine** (FISCHER and HEPP), 1887, A., 1115.
- Diphenyldiisindole**, and its salts (MÖHLAU), 1883, A., 342.  
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- Diphenyldiisindoleazo-**. See under Azo-.
- Diphenyldiisindolesulphanilic acid** (MÖHLAU), 1883, A., 343.
- Diphenyldiketodihydropyrazine** (ABENIUS), 1890, A., 268.
- Diphenyldiketopiperazine** and its derivatives (BISCHOFF), 1888, A., 726; (ABENIUS), 1888, A., 854.
- Diphenyl- $\alpha\beta$ -diketopiperazine** (BISCHOFF and NASTVOGEL), 1889, A., 1015; 1890, A., 1161.
- Diphenyl- $\alpha\gamma$ -diketopiperazine** (HAUSDÖRFER), 1889, A., 1013; (BISCHOFF and HAUSDÖRFER), 1890, A., 1332.  
homologues of (NASTVOGEL), 1889, A., 1012.
- Diphenyl- $\alpha\delta$ -diketopiperazine** (HAUSDÖRFER), 1889, A., 1014; (BISCHOFF and HAUSDÖRFER), 1890, A., 1333.
- Diphenyl- $\alpha\gamma$ -diketopiperazine- $\beta\delta$ -homocarboxylic acid** (BISCHOFF and NASTVOGEL), 1890, A., 1162.
- Diphenyldiketopyrazine** (ABENIUS), 1890, A., 526.
- Diphenyldimethyl** (ADAM), 1888, A., 959.
- Diphenyldimethylaldine** (SCHMIDT), 1890, A., 373.
- Diphenyldimethyl $\delta$ amidomethylene-*o*-phenylenediamine** (MOORE), 1890, A., 246.
- Diphenyldimethylazimethylene** (CURTIUS and RAUTERBERG), 1891, A., 1359.
- Diphenyl- $\alpha\gamma$ -dimethyl- $\beta\delta$ -diketopiperazine** (NASTVOGEL), 1889, A., 1012.
- Diphenyl- $\alpha\gamma$ -dimethyl- $\beta\delta$ -diketopiperazines**, isomerism of (NASTVOGEL), 1890, A., 1160.
- Diphenyldimethylenediamine** (PRAETI), 1885, A., 782.
- Diphenyldimethylindole** (ARHEIDT), 1887, A., 958.
- Diphenyldimethylmalonamide** (FREUND), 1884, A., 729.
- Diphenyldimethylphosphonium iodide** (DÖRKEN), 1888, A., 833.
- Diphenyldimethylpyrazoloneacetic acid** (PELLIZZARI), 1890, A., 645.
- s-Diphenyldimethylsuccinonitrile** (CHALANEY and KNOEVENAGEL), 1892, A., 619.
- 2:3-Diphenyl-1:4-dimethyltetrahydropyrazine** (MASON), 1889, T., 104.
- Diphenyldimethylthiocarbazide** (STAHEL), 1890, A., 1260.
- Diphenyldinitrosacyl** (HOLLEMAN), 1889, A., 50.
- Diphenyldiphenylenedicarbamide** (KÜHN), 1885, A., 979.
- 3-Diphenyl-4:5-diphenyl-1-methylpyrrolone** (KLINGEMANN), 1891, A., 736.
- Diphenyldipropylguanidine** (FRANKSEN), 1884, A., 1008.
- Diphenyldiisopropyltetrazone** (PHILIPS), 1889, A., 1159.
- Diphenyldipyridazine** (CIAMICIAN and ZANETTI), 1891, A., 1502.



- Diphenyldisulphine**, *m*-*d*initro- (EKBOH), 1891, A., 567.
- Diphenyldisulphonic acid** and its derivatives (LIMPRICHT), 1891, A., 930.  
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bromamido- (LIMPRICHT), 1891, A., 929.
- iso***Diphenylene**, new reaction of (JULIUS), 1884, A., 1181.
- Diphenylene ketone** (CARNELLEY and DUNN), 1888, P., 53; A., 1095.  
bromo- (CLAUS and ERLER), 1887, A., 269.  
*dibromo*- (HODGKINSON and MATTHEWS), 1883, T., 165; (HOLM), 1883, A., 921; (CLAUS and ERLER), 1887, A., 269.
- Diphenylene ketone oxide**. See Xanthone.
- Diphenylene ketoxime** (SPIEGLER), 1884, A., 1182; (WEGERHOFF), 1889, A., 1067.
- Diphenyleneazone** (TÄUBER), 1892, A., 184, 482.  
*mono*- and *di*-oxides of (TÄUBER), 1892, A., 183.  
*diamido*- (TÄUBER), 1892, A., 184.
- Diphenylenebisazo-dimethylaniline**,  $\beta$ -*naphthol* and *-resorcinol* (REULAND), 1890, A., 167.
- Diphenylenediacetonehydrazine** (ARHEIDT), 1887, A., 958.
- p*-**Diphenylenediamine** (TÄUBER), 1892, A., 481.
- Diphenylenediethylidene**, synthesis of, from benzene and ethylenic chloride (ANGELBIS and ANSCHÜTZ), 1884, A., 753.
- Diphenylenedihydrazinepyruvic acid** (ARHEIDT), 1887, A., 958.
- Diphenylenedimethylic disulphide** (OBERMEYER), 1888, A., 125.
- Diphenylenedisemicarbazine** (ARHEIDT), 1887, A., 958.
- Diphenylenediurethane** (SNAPE), 1886, T., 256; P., 158.
- Diphenylenehydrazone** (TÄUBER), 1892, A., 184.
- Diphenylenehydroxydihydroanthraquinone** (LIEBERMANN and BERGAMI), 1890, A., 515.
- Diphenyleneketonecarboxylamide** (WEGERHOFF), 1888, A., 1201.
- Diphenyleneketonecarboxylic acid** (BAMBERGER and HOOKER), 1885, A., 906, 1070; (GRAEBE and AUBIN), 1887, A., 589.
- o*-**Diphenyleneketonecarboxylic acid** (GRAEBE and AUBIN), 1889, A., 145.
- Diphenyleneketonedicarboxylic acid** (BAMBERGER and HOOKER), 1885, A., 906.
- Diphenyleneketoximedicarboxylic acid** (BAMBERGER and HOOKER), 1885, A., 906.
- Diphenylenemethane sulphide and sulphone** (GRAEBE and SCHULTESS), 1891, A., 1059.
- Diphenylenenaphthaquinoxalinesulphonic acid**, sodium salt of (WITT), 1886, A., 889.
- Diphenylene-*m*-phenylenediamine**, amido- (FISCHER and HEPP), 1890, A., 614.
- p*-**Diphenylene- $\alpha$ -tetramethyldipyrrole** (PAAL and SCHNEIDER), 1887, A., 273.
- Diphenylenetoluquinoxaline** (HINSBERG), 1884, A., 1053.
- Diphenylenic diisocyanate** (SNAPE), 1886, T., 255.  
oxide (GALEWSKY), 1891, A., 1234.  
synthesis of (TÄUBER and HALBERSTADT), 1892, A., 1470.  
*diamido*- (GALEWSKY), 1891, A., 1234.
- s*-**Diphenylethane** (*dibenzyl*) (ANSCHÜTZ), 1883, A., 807.  
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- Diphenylethane**, *di*-*o*-chlorodinitrosyl- (BEHREND and NISSEN), 1892, A., 1200.  
*p*-*d*initro-, preparation of (ROSER), 1887, A., 836.  
*o*-*d*initrocyano- (BAMBERGER), 1887, A., 131.  
*di*-*p*-nitrodinitrosyl- (BEHREND and KÖNIG), 1891, A., 1032.
- as*-**Diphenylethane**, synthesis of, from benzene and ethylenic chloride (ANGELBIS and ANSCHÜTZ), 1884, A., 753; (DA SILVA), 1884, A., 1356.  
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nitration-products of (ANSCHÜTZ and ROMIG), 1885, A., 800.  
*mono*- and *di*-nitro- (ANSCHÜTZ and ROMIG), 1885, A., 768.
- s*-**Diphenylethane-*o*-carboxylic acid** (GABRIEL), 1885, A., 1230.

- s-Diphenylethane-o-dicarboxylic acid** (WISLICIENUS), 1885, A., 58; (DORREFF), 1887, A., 958; (EPHRAIM), 1890, A., 1143.
- Diphenylethenylsulphone phenylic sulphide** (LAVES), 1890, A., 988.
- Diphenylethenylureide** (PINNER), 1891, A., 60.
- 2':4'-Diphenyletho- $\alpha\beta$ -dihydronaphthoquinoxaline** (FISCHER and BUSCH), 1891, A., 1514.
- 1':3'-Diphenylethonaphthazonium bromide**, hydroxide and nitrate (FISCHER and BUSCH), 1891, A., 1110.
- Diphenylethyl o-xylol ketone** (WEGE), 1892, A., 338.
- $\beta$ -Diphenylethylamine** (FREUND and IMMERWAHR), 1890, A., 1407.
- s-Diphenylethylamine** (LEUCKART and JANSSEN), 1889, A., 883.
- Diphenylethylamine**, action of diazo-p-nitrobenzene on (MELDOLA), 1884, T., 111.
- Diphenylethylcarbamide** (GEBHARDT), 1884, A., 1321.
- s-Diphenylethylene**. See Stilbene.
- Diphenylethylene diketone** (*diphenacyl*; *succinophenone*) (CLAUS and WERNER), 1888, A., 827; (AUGER), 1888, A., 952; (KAPF and PAAL), 1889, A., 147.
- Diphenylethyleneallylidenediamine** (MASON), 1887, A., 493.
- Diphenylethylenediamine**, action of carbonyl chloride on (HANSSEN), 1887, A., 577  
action of succinic acid and anhydride on (BISCHOFF and NASTVOGEL), 1890, A., 1164.
- $\alpha$ -Diphenylethylenedihydrazine** (BURCHARD and MICHAELIS), 1889, A., 138; (BURCHARD), 1890, A., 250.
- Diphenylethylenedihydrazine**, *dithionyl*- (MICHAELIS and RUHL), 1892, A., 1324.
- Diphenylethylenedihydrazinedisuccinic acid** (BURCHARD), 1890, A., 250.
- Diphenylethylenepropylidenedihydrazine** (BURCHARD), 1890, A., 251.
- Diphenylethylenesulphone** (OTTO and DAMKÖHLER), 1885, A., 261.  
action of potash and of ammonia on (OTTO and DAMKÖHLER), 1885, A., 537.
- Diphenylethylenedithiocarbamide** (LELMANN and WÜRTNER), 1885, A., 978.
- Diphenylethylenic glycol mononitrite** (ANSCHÜTZ and ROMIG), 1886, A., 1034.
- Diphenylethyl cyanide** (MEYER), 1888, A., 693.
- Diphenylethyl tricyanide** (KRAFFT and v. HANSEN), 1889, A., 697.  
hydrogen phosphate (LOSSEN and KÖHLER), 1891, A., 1015.
- Diphenylethylidene ether** (BIGINELLI), 1891, A., 296.
- Diphenylethylidenediamine**, *cyano*- (CHAUTARD), 1888, A., 810.
- Diphenylethylidenedisulphone** (ESCALES and BAUMANN), 1887, A., 123.
- Diphenylethylidenehydrazine** (v. MILLER and FLÖCHL), 1892, A., 1196.
- Diphenylethylsemithiocarbazide** (PHILIPS), 1889, A., 1158.
- Diphenylethylthiocarbamide** (GEBHARDT), 1884, A., 1321.  
action of aniline on (GEBHARDT), 1885, A., 383.
- Diphenylethyltriazole** (BLADIN), 1890, A., 271.
- Diphenylethylurazine** (PINNER), 1888, A., 1084.
- Diphenylformamidine** (WALLACH), 1883, A., 49; (PINNER), 1883, A., 731.  
*m*-nitro- (COMSTOCK and WHEELER), 1892, A., 707.  
*m*-dinitro- (COMSTOCK and WHEELER), 1892, A., 706.
- Diphenylfumaramic acid** (PIUTTI), 1886, A., 792.
- Diphenylfurazan** (DODGE), 1891, A., 1237.
- 2:5-Diphenylfurfuran** (KAPF and PAAL), 1888, A., 839; 1889, A., 148; (PERKIN and SCHLOESSER), 1889, P., 162; 1890, T., 944, 953.  
reduction of (PERKIN and SCHLOESSER), 1890, T., 955.  
*tetrabromo*- (PERKIN and SCHLOESSER), 1890, T., 954.
- 2:5-Diphenylfurfuran-3-carboxylic acid** (KAPF and PAAL), 1888, A., 839; (PERKIN and SCHLOESSER), 1890, T., 951.  
action of bromine on (PERKIN and SCHLOESSER), 1890, T., 953.
- 2:5-Diphenylfurfuran-3:4-dicarboxylic acid** (PERKIN and CALMAN), 1886, T., 168; (PERKIN and SCHLOESSER), 1890, T., 951.  
preparation of (PERKIN), 1885, T., 271.
- s-Diphenylglutaric acid** (ZELINSKY), 1890, A., 132; (ZELINSKY and FELD-MANN), 1890, A., 384.
- s-Diphenylglyceryl ether** (RÖSSING), 1886, A., 345.
- Diphenylglycollic acid**. See Benzilic acid.
- Diphenylglyoxaline** (JAPP), 1887, T., 557; P., 34.

- $\alpha$ -Diphenylglyoxime** (GOLDSCHMIDT and MEYER), 1883, A., 1120.
- $\beta$ -Diphenylglyoxime** (GOLDSCHMIDT), 1884, A., 62.
- Diphenylglyoxime peroxide** (SCHOLL), 1891, A., 316.
- Diphenylguanidine** (SCHÖNE), 1886, A., 338.  
dicyanide, bromo- and nitro- (HIRSCH), 1888, A., 947.
- Diphenylhexylmethane** and its derivatives (KRAFFT), 1887, A., 253.
- Diphenylhomofluorindine** (FISCHER and HEPP), 1890, A., 1444.
- Diphenylhydantoin** (BISCHOFF and HAUSDÖRFER), 1892, A., 1334.
- as*-Diphenylhydrazine**, derivatives of (STAHEL), 1890, A., 1259.  
cyanuric chloride (FRIES), 1886, T., 742.
- s*-Diphenylhydrazine** (*hydrazobenzene*), action of benzaldehyde on (CLEVE), 1886, A., 545.  
action of dibasic organic acids on (v. BANDROWSKI), 1884, A., 1015.  
action of ethyldichloramine on (PIERSON and HEUMANN), 1883, A., 915.  
action of ethylic acetoacetate on (v. PERGER), 1886, A., 898; (MÜLLER), 1886, A., 899.  
intramolecular change in (JACOBSON and FISCHER), 1892, A., 840.  
derivatives of (STERN; v. BANDROWSKI), 1884, A., 1015.  
halogen derivatives of (JANOVSKY and ERB), 1887, A., 478.
- s*-Diphenylhydrazine**, *diamido-* (*hydr-azoaniline*), preparation of (GRAEFF), 1885, A., 1127.  
bromo- [m.p. 63°] (JANOVSKY and ERB), 1886, A., 1024.  
*p*-bromo- [m.p. 115°] (JANOVSKY and ERB), 1887, A., 479.  
*di*bromo- (JANOVSKY and ERB), 1887, A., 479.  
*p*-chloro- (HEUMANN and MENTHA), 1886, A., 875.  
*m*-chloro-*o*-nitro- (WILLGERODT and FERKO), 1888, A., 830.  
*p*-iodo- (NÖLTING and WERNER), 1891, A., 211.  
 *$\alpha$ -dinitro-* (WILLGERODT and FERKÓ), 1888, A., 829; (WILLGERODT and HERMANN), 1889, A., 1160; 1890, A., 1259.  
*tri*nitro- (FISCHER), 1890, A., 40.  
conversion of, into nitrosodinitrazobenzene (FREUND), 1889, A., 977.
- Diphenylhydrazineacetylacetone** (PAAL), 1885, A., 505.
- s*-Diphenylhydrazine-*o*-carboxylic acid** (PAAL), 1892, A., 67.  
*p*-bromo- and *p*-chloro- (PAAL), 1892, A., 68.
- s*-Diphenylhydrazinedi-*m*-carboxylic acid** (*m*-*hydrazobenzoic acid*), acids obtained by heating, with stannous chloride (KUSSEROW), 1890, A., 778.
- s*-Diphenylhydrazinedi-*o*-carboxylic acid** (*o*-*hydrazobenzoic acid*) (HOMOLKA), 1884, A., 1342.
- s*-Diphenylhydrazinedisulphonamide** (LIMPRICHT and MEYER), 1892, A., 973.
- s*-Diphenylhydrazinedisulphonic acid** (RODATZ), 1883, A., 479; (LIMPRICHT), 1889, A., 399; 1890, A., 987.
- s*-Diphenylhydrazinedisulphonic acid** action of nitrous acid on (LIMPRICHT), 1885, A., 1216.
- Diphenylhydrazinepyruvic acid**, synthesis of (FISCHER and HESS), 1884, A., 1181.
- s*-Diphenylhydrazinedithiodisulphonic acid** and its barium salt (BAUER), 1885, A., 1139.
- s*-Diphenylhydrazinethiodisulphonic acids** (LIMPRICHT), 1885, A., 985.
- p*-Diphenylhydrazohexamethylene** (v. BAEYER and NOYES), 1889, A., 1148.
- Diphenylhydrazonebenzylidenesulphonic acid**, sodium salt of (KAFKA), 1891, A., 720.
- Diphenylhydrazonenitro-opianic acid** (BISTRZYCKI), 1888, A., 1209.
- Diphenylhydrazoneopianic acid** (BISTRZYCKI), 1888, A., 1209; (TUST), 1892, A., 1210.
- Diphenylhydrazonophthalaldehydic acid** (ALLENDORFF), 1891, A., 1370.
- Diphenylic carbonate**, action of aniline, *o*- and *p*-toluidines, naphthylamine, and of diphenylcarbamide on (ECKENROTH), 1885, A., 786.  
conversion of, into salicylic acid (HENTSCHEL), 1883, A., 589.
- dodecachloride** (SCHÜPPHAUS), 1885, A., 52.
- dicyanide** (PINNER), 1891, A., 60.
- o*:*p*-dicyanide** (REULAND), 1890, A., 167.
- $\Delta^{1:3}$ -dihydroterephthalate** (v. BAEYER and HERB), 1890, A., 1132.
- $\Delta^{2:5}$ -*cis*trans dihydroterephthalate** (v. BAEYER and HERB), 1890, A., 1131.
- diphenylenedicarbamate** (SNAPE), 1886, T., 256.
- hydrogen cyanide** (KRAFFT and KOENIG), 1890, A., 1252.



- Diphenylic lead oxide** (POLIS), 1888, A., 283.  
 lead salts (POLIS), 1887, A., 573; 1888, A., 283.  
 sebacamide (GEHRING), 1887, A., 822.  
*disulphide* (CLEVE), 1888, A., 698.
- Diphenylimide**, imidothio-, and its salts (BERNTHSEN), 1885, A., 259.
- Diphenylimidomethylthiazoline** (TRAUMANN), 1889, A., 415.
- "Diphenyldiimidonaphthol"** ( *$\beta$ -naphthaquinonediimidide*) (MELDOLA), 1884, T., 157.
- Diphenylimidophenylene** (SEIFERT), 1890, A., 490.
- Diphenylimidothiazoline** (FISCHER and BUSCH), 1891, A., 1517.
- Diphenylindole** (FISCHER), 1886, A., 806; (PFÜLF), 1887, A., 956.
- Diphenylene**. See *iso* Benzidine.
- Diphenylizindihydroxytartaric acid** (ZIEGLER and LOCHER), 1887, A., 578.  
*m*-nitro- (BISCHLER and BRODSKY), 1890, A., 151.
- Diphenylketazine** (CURTIUS and RAUTERBERG), 1891, A., 1359.
- Diphenylketopiperazine** (BISCHOFF and NASTVOGEL), 1889, A., 1009; 1890, A., 1160.
- $\beta$ -Diphenyllactic acid and anhydride** (WEISE), 1889, A., 253.
- Diphenylmaleanil** (ANSCHÜTZ and BENDIX), 1891, A., 71.
- Diphenylmaleic acid**, action of soda on (DELISLE), 1892, A., 297.
- Diphenylmaleic anhydride** (ANSCHÜTZ and BENDIX), 1891, A., 71; (GABRIEL and COHN), 1892, A., 178.
- Diphenylmaleonitrile** (CHALANEY and KNOEVENAGEL), 1892, A., 618.
- Diphenylmethane** (HODGKINSON and MATTHEWS), 1883, T., 164.  
 oxidation of, in the organism (KLINGENBERG), 1891, A., 1529.  
 derivatives of (STAEDEL and HAASE), 1890, A., 1422.
- Diphenylmethane**, *m*-amido- (BECKER), 1883, A., 203.  
*p*-amido- (BASLER), 1884, A., 310.  
 derivatives of (MANNS), 1889, A., 261.  
*p*-diamido-, and its nitro-derivatives (GRAM), 1892, A., 618.  
*tetramido*-, and its compounds (STAEDEL), 1883, A., 991.  
 bromo-, preparation of (HENDERSON), 1891, T., 731.  
*m*-nitro- (BECKER), 1883, A., 202.  
*o*-nitro-, preparation of (GEIGY and KOENIGS), 1885, A., 1237.
- Diphenylmethane**, *p*-nitro- (BASLER), 1884, A., 310; (MANNS), 1889, A., 261.  
*d*-nitro- (BASLER), 1884, A., 310.  
*tetranitro*- (v. RICHTER), 1888, A., 1190.  
 preparation of (STAEDEL), 1883, A., 990.
- p*-Diphenylmethanecarbamide** (MANNS), 1889, A., 261.
- Diphenylmethanedicarboxylic acid** (GRAEBE and JUILLARD), 1888, A., 156; (JUILLARD), 1888, A., 708.
- Diphenylmethanehydrazine** (MANNS), 1889, A., 261.
- Diphenylmethanetricarboxylic acid** (GRAEBE and JUILLARD), 1888, A., 154; (JUILLARD), 1888, A., 707.
- Diphenylmethenylamidine** (SENIER), 1885, A., 767.
- Diphenylmethenylazidine** (PINNER), 1884, A., 1323.
- Diphenylmethenyldiamine** (TOBIAS), 1883, A., 326.
- Diphenylmethylamine**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 296.
- Diphenylmethylamine**, *d*iamidothio-, and its derivatives (BERNTHSEN), 1885, A., 259.  
*p*-nitroso- (FISCHER and HEPP), 1890, A., 614.  
 thio- (HOLZMANN), 1888, A., 1080.
- Diphenylmethylamineazylene** (LIPPMANN and FLEISSNER), 1884, A., 180.
- Diphenylmethylaminesulphone** (BERNTHSEN), 1884, A., 596.
- Diphenylmethylcarbamide** (GEBHARDT), 1884, A., 1321.
- Diphenylmethylcarbinol** (ADAM), 1888, A., 959.  
 nitro- (ANSCHÜTZ and ROMIG), 1885, A., 768.
- Diphenyl-*o*-, -*m*- and -*p*-methylcarbinylamines** (GOLDSCHMIDT and STÖCKER), 1891, A., 1480, 1479.
- Diphenyl-*m*-methylcarbinylcarbamide** (*homobenzhydrylcarbamide*) (GOLDSCHMIDT and STÖCKER), 1891, A., 1480.
- Diphenyl-*p*-methylcarbinyl-phenylcarbamide and -thiocarbamide** (GOLDSCHMIDT and STÖCKER), 1891, A., 1480.
- Diphenylmethylcinnamaldazimethylen** (CURTIUS and RAUTERBERG), 1891, A., 1360.
- 2:6-Diphenyl-5-methyl-*m*-diazine**, 4-amido- (v. MEYER), 1889, A., 578; (SCHWARZE), 1890, A., 1159.
- Diphenylmethyldihydropyrazine** (KNORR and BLANK), 1885, A., 556.

- 4':5'-Diphenyl-3'-methyl-dihydroquin-oxaline (FISCHER and BUSCH), 1891, A., 1515.
- Diphenylmethylene diketone. See Dibenzoylmethane.
- Diphenylmethylenedianiline (v. MILLER and PLÖCHL), 1892, A., 1195.
- Diphenylmethylene-benzaldazine and -cinnamaldazine (CURTIUS and RAUTERBERG), 1891, A., 1359.
- Diphenylmethylene-hydrazine and -tetrazone (CURTIUS and RAUTERBERG), 1891, A., 1358, 1359.
- Diphenylmethylenedithioglycollic acid (BONGARTZ), 1888, A., 479.
- Diphenylmethylenedisulphide (FASBENDER), 1888, A., 805.
- Diphenylmethylethophenazonium hydroxide (KEHRMANN and MES-SINGER), 1892, A., 1108.
- Diphenylmethylglyoxaline (JAPP and WYNNE), 1886, T., 465; P., 201; (JAPP), 1887, T., 557; P., 34.
- Diphenylmethylic tricyanide (KRAFFT and v. HANSEN), 1889, A., 696. formation of (EITNER and KRAFFT), 1892, A., 1184. preparation of (KRAFFT and KOE-NIG), 1890, A., 1252. sulphide (OBERMEYER), 1888, A., 124.
- Diphenylmethylphthalide (v. HEMI-AN), 1884, A., 321.
- Diphenylmethylpyrazole and its deriva-tives (KNORR and BLANK), 1885, A., 556; (FISCHER and BÜLOW), 1885, A., 1237. *o*- and *p*-nitro- (KNORR and JÖDICKE), 1885, A., 1247, 1248.
- 1:3-Diphenyl-5-methylpyrazole, *tri*-nitro- (KNORR and LAUBMANN), 1889, A., 409.
- 1:5-Diphenyl-3-methylpyrazole (KNORR), 1887, A., 678.
- Diphenylmethylisopyrazole and its salts (KNORR and BLANK), 1885, A., 810.
- Diphenylmethylpyrazolecarboxylic acid (KNORR and BLANK), 1885, A., 556. *p*-amido- (KNORR and JÖDICKE), 1885, A., 1248. *o*- and *p*-nitro- (KNORR and JÖDICKE), 1885, A., 1247, 1248.
- Diphenylmethylisopyrazolecarboxylic acid and its salts (KNORR and BLANK), 1885, A., 810.
- Diphenylmethylpyrazolecarboxylic anhydride, *o*-amido- (KNORR and JÖDICKE), 1885, A., 1248.
- 1:5-Diphenyl-3-methylpyrazoline (KNORR), 1887, A., 678.
- 1:3-Diphenyl-2-methylpyrazolone (KNORR and KLOTZ), 1887, A., 1121.
- 1:5-Diphenyl-2-methylpyrrole (LE-DERER and PAAL), 1886, A., 75.
- 1:5-Diphenyl-2-methylpyrrole-3-carb-oxylic acid and its ethyl salt (LE-DERER and PAAL), 1886, A., 75.
- 3':4'-Diphenylmethylquinoxaline (HINSBERG), 1884, A., 1053.
- Diphenylmethylsulphonephenylic sul-phide (LAVES), 1890, A., 988.
- $\alpha\beta$ -Diphenyl- $\mu$ -methylthiazole (HU-BACHER), 1891, A., 222.
- Diphenylmethylthiocarbamide (GEB-HARDT), 1884, A., 1820. action of ammonia and of *o*-toluidine on (GEBHARDT), 1885, A., 333.
- Diphenylmethyltriazole (BLADIN), 1889, A., 138.
- Diphenyl-naphthaleneazammonium hydroxide and its salts (ZINCKE and LAWSON), 1887, A., 731.
- Diphenyl-naphthaquinoxaline (LAW-SON), 1885, A., 1239.
- Diphenyl- $\alpha\beta$ -naphthatriazine (MEL-DOLA), 1890, T., 331. and its derivatives (MELDOLA and FORSTER), 1891, T., 681.
- Diphenyl-naphthylencarbamide (BAM-BERGER and SCHIEFFELIN), 1889, A., 892.
- Diphenyl-naphthylenediamine [m.p. 168°] (ANNAHEIM), 1887, A., 839.
- Diphenyl-naphthylene-*p*-diamine (FISCHER and HEPP), 1890, A., 911.
- Diphenyl-*o*-nitrobenzylcarbamide (PAAL and BODEWIG), 1891, A., 944.
- Diphenyl-*d*-nitroethane (GABRIEL), 1885, A., 1229.
- Diphenyl-*d*-nitromethane (SCHOLL), 1891, A., 315.
- Diphenyl-*m*- and -*p*-nitrophenylcarb-amides (LELLMANN and BONHÖFFER), 1887, A., 936.
- Diphenylnitrosamine, *o*-nitro- (FIS-CHER), 1892, A., 332.
- Diphenyl-*d*-nitrosohydrazine (AR-HEIDT), 1887, A., 958.
- Diphenylnitrosoketopiperazine (BIS-CHOFF and NASTVOGEL), 1890, A., 1161.
- Diphenyl-*tr*-nitrosopropane (DE NEUF-VILLE and v. PECHMANN), 1891, A., 319.
- Diphenyl-*m*-nitro-*p*-tolylcarbamide (LELLMANN and BONHÖFFER), 1887, A., 936.
- Diphenyloxalylguanidine, nitro- (HIRSCH), 1888, A., 947.
- Diphenyloxamide. See Oxanilide.

- Diphenyloxycyanidine** (PINNER), 1891, A., 59.
- Diphenylparabanic acid** (V. STOJENTIN), 1885, A., 1195, 1196.
- nitro-** (HIRSCH), 1888, A., 947.
- dinitro-** (V. STOJENTIN), 1885, A., 1195.
- Diphenyl-*p*-phenylene diketone** (NÖLTING and KOHN), 1885, A., 389; 1886, A., 349.
- Diphenyl-*m*- and -*p*-phenylenediamines and their derivatives** (CALM), 1884, A., 591, 592.
- Diphenyl-*m*-phenylenediamine, *p*-nitroso-** (FISCHER and HEPP), 1890, A., 613.
- Diphenylphenylenedicarbamide** (KÜHN), 1885, A., 979.
- m*-Diphenylphenylenedisulphone**, action of potash on (OTTO and RÖSING), 1887, A., 372.
- Diphenylphenylenepropionic acid** (LIEBERMANN and HARTMANN), 1892, A., 1228.
- Diphenylphenylenedithiocarbamides, *o*- and *m*-** (LELLMANN and WÜRTNER), 1885, A., 977.
- Diphenylphosphinic acid, diamido-** (DÖRKEN), 1888, A., 834.
- dinitro-** (DÖRKEN), 1888, A., 833.
- Diphenylphosphonium salts** (DÖRKEN), 1888, A., 833.
- Diphenylphosphoric acid, dinitro-** (RAPPE), 1884, A., 1337.
- Diphenylphosphorous acid** (NOACK), 1883, A., 737.
- Diphenylphosphoryl chloride** (NOACK), 1883, A., 735; (ANSCHÜTZ and EMERY), 1890, A., 34.
- trichloride and thiochloride** (ANSCHÜTZ and EMERY), 1890, A., 35.
- Diphenylphthalamic acid, and its salts** (PIUTTI), 1884, A., 451.
- Diphenylphthalidecarboxylic acid** (V. HEMILIAN), 1887, A., 267.
- Diphenylphthaloylic acid** (KAISER), 1890, A., 897.
- Diphenylphthalylasparagine** (PIUTTI), 1886, A., 621.
- Diphenylpiperazine** (BISCHOFF and TRAPESONZJANZ), 1890, A., 1332.
- preparation of** (LELLMANN and SCHLEICH), 1889, A., 904.
- and its homologues, preparation of** (BISCHOFF), 1889, A., 1010.
- Diphenylpiperazine, *p*-diamido-**, formation of colouring matters from (LELLMANN and SCHLEICH), 1889, A., 904.
- p*-dinitro-** (SCHMIDT and WICHMANN), 1892, A., 210.
- 2:3-Diphenylpiperazines,  $\alpha$ - and  $\beta$ -**, and their derivatives (MASON), 1889, T., 102, 105.
- $\alpha\alpha$ -Diphenylpiperidine and  $\alpha\alpha$ -diphenylpiperidine- $\gamma$ -carboxylic acid** (PAAL and STRASSER), 1888, A., 63.
- $\alpha\beta$ -Diphenylpropane** (WISPEK and ZUBER), 1883, A., 977; (KRAEMER, SPILKER and EBERHARDT), 1891, A., 207.
- Diphenylpropionic acid and its derivatives** (BÖTTINGER), 1884, A., 55.
- $\beta$ -Diphenylpropionic acid**, preparation of (HENDERSON), 1891, T., 734; P., 123; (LIEBERMANN and HARTMANN), 1892, A., 849, 1228.
- Diphenylpropylamine** (FREUND and REMSE), 1890, A., 1422.
- Diphenylpropyl-carbamide, -oxamide and -phenylthiocarbamide** (FREUND and REMSE), 1890, A., 1422.
- Diphenylpropylic alcohol** (FREUND and REMSE), 1890, A., 1423; (PERKIN and STENHOUSE), 1891, T., 1009.
- Diphenylpropylpropionitrile** (ROSSOLYMO), 1889, A., 862.
- Diphenylisopropylsemithiocarbazide** (PHILIPS), 1889, A., 1159.
- 2:3-Diphenylpyrazine** (MASON), 1889, T., 99.
- dinitro-** (MASON), 1889, T., 101.
- 3:6-Diphenylpyrazine (isocindole, amphiphenacylnitrile)** (FRIEDLÄNDER and MÄHL), 1883, A., 918; (MÖHLAU), 1885, A., 560.
- molecular weight of** (TREADWELL and MEYER), 1883, A., 665.
- 1:3-Diphenylpyrazole** (KNORR and LAUBMANN), 1889, A., 410.
- Diphenylpyrazolecarboxylic acid** (BEYER and CLAISEN), 1887, A., 944.
- Diphenylpyrazoledicarboxylic acid** (KNORR and LAUBMANN), 1889, A., 409.
- 1:5-Diphenylpyrazoline** (LAUBMANN), 1888, A., 726.
- 1:3-Diphenylpyrazolone and its derivatives** (KNORR and KLOTZ), 1887, A., 1121.
- Diphenylpyrazoloneazobenzene** (KNORR and KLOTZ), 1887, A., 1121.
- 2:6-Diphenylpyridine** (PAAL and STRASSER), 1888, A., 63; (DOEBNER and KUNTZE), 1889, A., 1212.
- 2:6-Diphenylpyridine-4-carboxylic acid** (PAAL and STRASSER), 1888, A., 62.
- $\alpha\alpha'$ -Diphenylpyridinetricarboxylic acid** (DOEBNER and KUNTZE), 1889, A., 412.
- 2:6-Diphenylpyridone and 2:6-diphenylpyridone-3-carboxylic acid** (FEIST), 1891, A., 458.



- 2:6-Diphenylpyrone and 2:6-diphenylpyronecarboxylic acid (FEIST), 1891, A., 458.
- 2:5-Diphenylpyrrole (BAUMANN), 1887, A., 736; (KAPF and PAAL), 1889, A., 149.
- 2:5-Diphenylpyrrole-3-carboxylic acid (KAPF and PAAL), 1888, A., 840; 1889, A., 149.
- Diphenyl-pyrrolidone and -pyrrolone (KLINGEMANN), 1892, A., 1003.
- Diphenylpyrrolyrolotolactone (ANGELI), 1890, A., 1000.
- $\alpha$ -Diphenyl- $\beta$ -pyrrolylpropionic acid (ANGELI), 1890, A., 1000.
- p*-Diphenylquinol (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Diphenylquinol, *di*-, *tri*- and *tetra*-nitro- (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- 2:4-Diphenylquinoline (BEYER), 1887, A., 849.
- $\alpha\beta$ -Diphenylquinoline (BUDDEBERG), 1890, A., 1142.
- Diphenylquinolylmethane and its derivatives (FISCHER and FRÄNKEL), 1886, A., 561; 1888, A., 56.
- p*-Diphenylquinone (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Diphenylquinoxaline, *diamido*-(NIETZKI and MÜLLER), 1889, A., 605.
- Diphenylquinoxaline-*m*-carboxylic acid (ZEHRA), 1891, A., 303.
- Diphenylresorcinol, *tetra*-, *penta*- and *hexa*-nitro- (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- Diphenylrosamine (HEUMANN and REY), 1890, A., 158.
- $\alpha\mu$ -Diphenylselenazole (HOFMANN), 1889, A., 727.
- Diphenylselenocarbamide (STOLTE), 1887, A., 43.
- Diphenylselenone (CHABRIÉ), 1890, A., 34.
- Diphenylsemicarbazide (KÜHN), 1885, A., 261.
- Diphenylsemithiocarbazide, *p*-bromo-*o*-nitro-, and *m*-nitro- (BISCHLER and BRODSKY), 1890, A., 152, 151.
- Diphenylsemithiocarbazidecarboxylic acid (RODER), 1887, A., 150.
- Diphenylsilicon dichloride (POLIS), 1886, A., 619.
- Diphenyl-stibic acid and -stibine chloride (MICHAELIS and REESE), 1886, A., 885.
- Diphenylsuccinamic acid, and its salts (PIUTTI), 1885, A., 783.
- Diphenyl-succinanil and -succinanilic acid (ANSCHÜTZ and BENDIX), 1891, A., 72.
- Diphenylsuccinic acid, action of strong sulphuric acid on (ROSER), 1888, A., 1301.
- cyano- (POPPE), 1890, A., 504.
- Diphenylisossuccinic acid, preparation of (HENDERSON), 1891, T., 732; P., 123.
- Diphenylsuccinic acid (ANSCHÜTZ and BENDIX), 1891, A., 71.
- Diphenylsuccinic anhydrides (TILLMANN), 1890, A., 1135; (ANSCHÜTZ and BENDIX), 1891, A., 72.
- Diphenylsuccinimidine (BLOCHMANN), 1887, A., 931.
- Diphenylsuccinonitriles, stereoisomeric (CHALANEY and KNOEVENAGEL), 1892, A., 619.
- Diphenylsulphamic acid, amido- (SPIEGEL), 1885, A., 987.
- Diphenylsulphide-*o*-carboxylic acid (ZIEGLER), 1890, A., 1292; (GRAEBE and SCHULTESS), 1891, A., 1058.
- Diphenylsulphonamic acid, ammonium salt of (TRAUBE), 1891, A., 569.
- Diphenylsulphone (*benzenesulphone*; *sulphobenzide*) (OTTO), 1885, A., 535.
- decomposition of (OTTO), 1886, A., 1031.
- Diphenylsulphone, *diamido*- and its derivatives (LAUTH), 1892, A., 1093.
- o*-dichloro- (FRIEDEL and CRAFTS), 1887, A., 1101.
- Diphenylsulphone mercaptan (R. and W. OTTO), 1888, A., 282.
- s*-Diphenylsulphoneacetone, synthesis of (OTTO), 1889, A., 1186.
- Diphenylsulphonebromopropane (STUFFER), 1890, A., 988.
- Diphenylsulphone-*o*-carboxylic acid (GRAEBE and SCHULTESS), 1891, A., 1058.
- Diphenylsulphonedimethylacetone (OTTO), 1886, A., 801.
- Diphenylsulphonedisulphonic acid and its derivatives (OTTO and RÖSSING), 1887, A., 263.
- Diphenylsulphonemethane (FROMM), 1890, A., 56.
- Diphenylsulphonephenyl ether (OTTO and RÖSSING), 1887, A., 372.
- s*-Diphenylsulphoneisopropyl alcohol (OTTO and RÖSSING), 1890, A., 780.
- Diphenylsulphone-*m*-sulphonic acid (OTTO), 1886, A., 1031.
- $\alpha\beta$ -Diphenylsulphone- $\beta$ -thiophenylpropane (AUTENRIETH), 1891, A., 1068.
- Diphenylsulphonethylamine (OTTO), 1890, A., 330.

- Diphenylsulphonethylic oxide** (OTTO and DAMKÖHLER), 1885, A., 263.  
**sulphide** (OTTO and DAMKÖHLER), 1885, A., 538.
- Diphenylsulphonethylmethylaniline** (OTTO and DAMKÖHLER), 1885, A., 538.
- Diphenylsulphonic acid, p-amido-** (CARNELLEY and SCHLESELMANN), 1886, T., 380; P., 184.
- Diphenylsulphoxide** (COLBY and Mc LOUGHLIN), 1887, A., 371.  
*di-nitro-* (COLBY and McLOUGHLIN), 1887, A., 372.
- Diphenyltartaric acid**, and the hydrobromide of the amide of (BURTON), 1884, A., 62.
- Diphenyltaurocarbamic anhydride** (ANDREASCH), 1883, A., 664.
- Diphenyltetrahydrofurfuran** (KAPF and PAAL), 1889, A., 148.
- Diphenyltetrahydrophenanthroline** (SCHIFF and VANNI), 1890, A., 139.
- Diphenyltetrazine** and methiodide of (RUHEMANN), 1889, T., 244, 245.  
 bromo-derivatives of (RUHEMANN), 1889, T., 246.  
 nitro- (RUHEMANN), 1890, T., 51.
- αμ*-Diphenylthiazole** (HUBACHER), 1891, A., 221.
- Diphenylthiazolecarboxylthiamide** (BLADIN), 1892, A., 638.
- Diphenylthienylmethane** (LEVI), 1886, A., 187.
- s-Diphenylthiocarbamide** (*thiocarbamilide*) (SCHIFF and VANNI), 1892, A., 600.  
 constitution of (GOLDSCHMIDT and MEISSLER), 1890, A., 500.  
 melting point and crystalline form of (LOSANITSCH), 1886, A., 876.  
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 action of ethoxalyl chloride on (v. STOJENTIN), 1884, A., 1159.  
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 action of water on (CAIN and COHEN), 1891, T., 328.  
 compounds of, with metallic salts (RATHKE), 1884, A., 1018.
- s-Diphenylthiocarbamide, m- and p-amido-** (LELLMANN and WÜRTNER), 1885, A., 977.  
*mono-* and *di-nitro-*, action of iodine on (LOSANITSCH), 1883, A., 582.
- as-Diphenylthiocarbamide** (WERNER), 1892, P., 96; (PASCHKOWETZKY), 1892, A., 164.
- Diphenylthiocarbazine acid** (STAHEL), 1890, A., 1260.
- Diphenylthiocarbimide, m-mono- and di-nitro-** (STEUDEMANN), 1883, A., 801.
- Diphenylthiohydantoin** (KOSSEL), 1892, A., 468.
- 2:5-Diphenylthiophen** (KAPF and PAAL), 1889, A., 148.
- Diphenyltolenylamidine** (GLOCK), 1888, A., 1290.
- Diphenyl-p-tolnylamide** (LELLMANN and BONHÖFFER), 1887, A., 935.
- Diphenyl-p-tolylbiuret** (PAWLEWSKI), 1888, A., 474.
- Diphenyltolylcarbinol, triamido-**. See Rosaniline.
- Diphenyltolylcarbinol-m-carboxylic acid** (v. HEMILIAN), 1884, A., 323.
- Diphenyl-m-tolylenediamine** and its derivatives (ZEGA and BUCH), 1886, A., 873.
- Diphenyltolylenedicarbamide** (KÜHN), 1885, A., 979; (LEUCKART), 1890, A., 760.
- Diphenyl-m-tolylenethiocarbamide** (BILLETER and STEINER), 1886, A., 234.
- Diphenyl-p-tolylenedithiocarbamide** (LELLMANN and WÜRTNER), 1885, A., 977.
- Diphenyltolylene dicarbamate** (SNAPE), 1886, T., 258.
- Diphenyl-p-tolylguanidine** (HUHN), 1886, A., 1036.
- Diphenyl-m-tolylmethane** (v. HEMILIAN), 1884, A., 322.
- Diphenyltolylmethane, triamido-**. See Leucaniline.
- Diphenyl-p-tolylmethanecarboxylic acid** [m.p. 217°] (v. HEMILIAN), 1884, A., 322.
- Diphenyl-p-tolylmethanecarboxylic acid** [m.p. 155°] (GRESLY), 1886, A., 1035.
- 3':4'-Diphenyl-1'-tolylmethylidihydroquinoxaline** (FISCHER), 1891, A., 748.
- 2'':3''-Diphenyl-4''-tolynaphthadihydroquinoxaline** (FISCHER), 1892, A., 1474.
- 2'':3''-Diphenyl-4''-tolynaphthahydronaphthazonium hydroxide** (FISCHER), 1892, A., 1474.

- p*-Diphenyltolylphosphine and its derivatives (DÖRKEN), 1888, A., 833.
- 2:5-Diphenyl-*o*-tolylpyrrole (PAAL and BRAIKOFF), 1890, A., 263.
- 2:5-Diphenyl-*p*-tolylpyrrole (BAUMANN), 1887, A., 736.
- Diphenyl-*o*- and -*p*-tolylpyrrolecarboxylic acids (PAAL and BRAIKOFF), 1890, A., 263.
- Diphenyltriazenylamidoxime (BLADIN), 1889, A., 978.
- Diphenyltriazenyl-benzenyl- and -ethenyl-azoximes (BLADIN), 1889, A., 978.
- Diphenyl-triazole and -triazolecarboxylic acid (BLADIN), 1889, A., 703.
- Diphenyltricarboxylic acid (BAMBERGER and HOOKER), 1885, A., 906, 1070.
- Diphenyltrimethylenedithiocarbamide (LELLMANN and WÜRTNER), 1885, A., 978.
- $\alpha\alpha$ -Diphenyltrimethylenic cyanide (ZELINSKY and FELDMANN), 1890, A., 384.
- Diphenylurazine (PINNER), 1888, A., 1084.
- Diphenylurethane, and its derivatives (HAGER), 1886, A., 59.
- Diphenylvinyl nitrite (ANSCHÜTZ and ROMIG), 1886, A., 1034.
- Diphenyl-*o*-xylylenediamine (LESER), 1884, A., 1313.
- Diphenyl-*o*- and -*m*-xylylmethanes (v. HEMILIAN), 1887, A., 267, 266.
- Diphenyl-*p*-xylylmethane and its products of oxidation (v. HEMILIAN), 1884, A., 321.
- Diphenyl-*m*-xylylpyrrole (PAAL and BRAIKOFF), 1890, A., 263.
- Diphloroglucinolcarboxylic acid (SCHIFF), 1888, A., 840.
- Diphosphoric acid, *mono*- and *di*imido- (MENTE), 1889, A., 210.
- Diphosphorhomonamic acid, *di*imido- (MENTE), 1889, A., 210.
- Dipthalide ether (RACINE), 1887, A., 951.
- Dipthalyl (GRAEBE and GUYE), 1885, A., 267.  
and its derivatives (WISLIGENUS), 1885, A., 57; (ROSER), 1885, A., 267; (GRAEBE and SCHMALZIGAUG), 1885, A., 797; (GRAEBE and GUYE), 1886, A., 882.  
bromide, crystalline form of (SORET), 1886, A., 619.
- Dipthalyl, *tetrachloro*-, and *nitro*- (GRAEBE and GUYE), 1886, A., 882.
- Dipthalylamidoethyl sulphide (GABRIEL), 1891, A., 815.
- Dipthalyl-di-*p*-benzidine (v. BANCROWSKI), 1884, A., 1015.
- Dipthalyl-diethylenephentriamine (GABRIEL), 1889, A., 1166.
- Dipthalyl-ditrimethylenetriamine (GOLDENRING), 1890, A., 976.
- Dipthalylethane (*ethinedipthalyl*) (ROSER), 1885, A., 165.  
*mono*- and *di*-nitro- (GABRIEL), 1886, A., 620.
- iso*-Dipthalylethane (ROSER), 1885, A., 267.
- Dipthalylethane anhydride (ROSER), 1885, A., 165.
- Dipthalyllic acid (GRAEBE and JUILLARD), 1888, A., 154; (JUILLARD), 1888, A., 707.
- Dipthalylimide (GRAEBE and GUYE), 1886, A., 883.
- Dipthalylimidoethyl sulphide (GABRIEL), 1892, A., 130.  
*disulphide* (COBLENTZ and GABRIEL), 1891, A., 817.  
*sulphoxide* (GABRIEL), 1891, A., 816; 1892, A., 130.
- Dipthalylimidoethylsulphone (GABRIEL), 1892, A., 131.
- $\beta$ -Dipthalylimidopropyl *disulphide* (SEITZ), 1891, A., 1473.
- Dipthalyllactonic acid (GRAEBE and SCHMALZIGAUG), 1885, A., 798.
- Dipthalylpropane (*propinedipthalyl*) (ROSER), 1885, A., 268.
- Dipthalyl-succinilide and -succinide-hydranilide (ROSER), 1886, A., 244.
- Diphtheria, chemical pathology of (MARTIN), 1892, A., 744.
- Dipicolinic acid. See Pyridine-2:6-dicarboxylic acid.
- Dipicolyl (AHRENS), 1889, A., 59.
- Dipicolylmethane (LADENBURG), 1889, A., 161.
- Dipicrylhydroxylamine (MICHAEL and BROWNE), 1887, A., 663.
- Dipipicolinemethane (LADENBURG), 1889, A., 161.
- Dipiperidine (LELLMANN and SCHWADERER), 1889, A., 901.
- Dipiperidyl [b.p. 251°] and its derivatives (LIEBRECHT), 1886, A., 161; 1887, A., 161.
- 2:2-Dipiperidyl (BLAU), 1889, A., 1213.
- 2:3-Dipiperidyl (BLAU), 1891, A., 583; 1892, A., 1365.
- 4:4-Dipiperidyl and its derivatives (AHRENS), 1889, A., 59; 1891, A., 1094.
- Dipiperidylcarbamide (WALLACH and LEHMANN), 1887, A., 385.
- Dipiperidylisatin (SCHOTTEN), 1891, A., 928.



- Dipiperidylisatin**, bromo- (SCHOTTEN), 1891, A., 1491.
- Dipiperidyl-methane** and **-phenyl-methane** (EHRENBERG), 1887, A., 1027.
- Dipiperonylideneacetone** (*dipiperonylacryl ketone*) (HABER), 1891, A., 704.  
*di*bromo- (OELKER), 1891, A., 1475.  
*dinitro*- (HABER), 1891, A., 705.
- Dipiperylquinone** (LACHOWICZ), 1888, A., 1314.
- Dipiperylsemitiocarbazide** (KNORR), 1884, A., 468.
- Dipropargyl** (*hexynene*), constitution of (BRÜHL), 1892, A., 1437.  
 isomeric change in (FAWORSKY), 1891, A., 1332.  
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- Diisopropenyl** (MARIUTZA), 1890, A., 728.
- Dipropionamide** (OTTO and TRÖGER), 1890, A., 726.
- Dipropionyl-*o*-diamidotoluene** (BISTRZYCKI and ULFFERS), 1890, A., 1115.
- Dipropionyldiphenylglyoxime** (AUWERS and MEYER), 1888, A., 598.
- Dipropionylic dicyanide** (LOBRY DE BRUYN), 1885, A., 963.
- Dipropionylmorphine** (HESSE), 1884, A., 613.
- Dipropionynaphthylenediamine** (BISTRZYCKI and ULFFERS), 1890, A., 1115.
- Dipropionylpyrrole** (DENNSTEDT and ZIMMERMANN), 1887, A., 844.
- Dipropyl**. See *n*-Hexane.
- Dipropyl acetoxime** (MEYER and WARRINGTON), 1887, T., 689.  
 action of acetic chloride on (MEYER and WARRINGTON), 1887, T., 689.
- Diisopropyl acetoxime** and its behaviour with acetic chloride (MEYER and WARRINGTON), 1887, T., 684, 685.
- Dipropyl diketone** (*dibutyryl*) (KLINGER and SCHMITZ), 1891, A., 890.
- Dipropyl diketoxime** (*dibutyryloxime*) (MÜNCHMEYER), 1886, A., 350, 877.
- Dipropyl distyryl ketone** (*dicuminalacetone*) (CLAISEN and PONDER), 1884, A., 1167.
- Dipropyl ketone** (*butyrone*) (HAMONET), 1889, A., 235.  
 preparation of, by Perkin's method (PERKIN), 1886, T., 322.  
 action of zinc ethyl and zinc iodoethide on (MENSCHIKOFF), 1888, A., 248.
- Diisopropyl ketone** (POLETÉEFF), 1889, A., 477.
- Diisopropyl ketoxime** (MEYER and WARRINGTON), 1886, A., 783.
- Dipropylacetic acid** (*octoic acid*), preparation of, from ethylic malonate (FÜRTH), 1888, A., 1053.
- Dipropylacetylenic dibutyrate** (KLINGER and SCHMITZ), 1891, A., 891.
- $\beta$ -Dipropylacrylic acid**, and its salts (ALBITZKY), 1885, A., 242.
- Dipropylallylamine** and its platinochloride (LIEBERMANN and PAAL), 1883, A., 909.
- Dipropylallylcarbinol**. See Decenylic alcohol.
- Dipropylamido- $\gamma$ -disulphide hydrochloride** (GABRIEL and LAUER), 1890, A., 472; (LAUER), 1890, A., 1090.
- Dipropylamine** (VINCENT), 1886, A., 1005.  
 magnetic rotatory power of (PERKIN), 1889, T., 693, 730.  
 molecular refraction and dispersion of (GLADSTONE), 1891, T., 296.  
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- Dipropylamine arsenious bromide** (LANDAU), 1889, A., 211.  
 nitroso- (VINCENT), 1886, A., 1005.
- Diisopropylamine** (VAN DER ZANDE), 1889, A., 953.
- Dipropylaniline** (LIPPMANN and FLEISSNER), 1883, A., 185.  
 cyanhydrin, nitroso- (MANDL), 1886, A., 793.  
*dinitro*- (VAN ROMBURGH), 1889, A., 971.
- Dipropylanilineazylene** (LIPPMANN and FLEISSNER), 1883, A., 55, 185.
- Dipropylanthracene dihydride** (HALLGARTEN), 1889, A., 895.
- Dipropylanthrone** (HALLGARTEN), 1889, A., 894.
- p*-Dipropylbenzene** (KÖRNER), 1883, A., 321; (FILETI), 1891, A., 1022.  
*di*bromo- (KÖRNER), 1883, A., 322.  
*di*bromodinitro- (FILETI), 1891, A., 1022.  
*dinitro*- (KÖRNER), 1883, A., 321.
- Diisopropylbenzene** (DA SILVA), 1885, A., 1054.  
 and its derivatives (UHLHORN), 1891, A., 184.
- Dipropylbenzenes**, synthesis of (HEISE), 1891, A., 685.
- p*-Dipropylbenzenesulphonamide** (REMSEN and KEISER), 1884, A., 457.
- m*-Dipropylbenzenesulphonic acid** (HEISE), 1891, A., 685.

- α-p*-Dipropylbenzenesulphonic acid** and its salts (KÖRNER), 1883, A., 321; (REMSEN and KEISER), 1884, A., 457; (FILETI), 1891, A., 1022.
- β-p*-Dipropylbenzenesulphonic acid** (FILETI), 1891, A., 1022.
- s*-Dipropylcarbamide** (HECHT), 1890, A., 476.
- as*-Dipropylcarbamide** (VAN DER ZANDE), 1889, A., 963; (CHANCEL), 1892, A., 1421.
- as*-Diisopropylcarbamide** (VAN DER ZANDE), 1889, A., 963.
- Dipropylcarbinol** (*sec-heptylic alcohol*) [b.p. 150°] (USTINOFF and SAYTZEFF), 1887, A., 353.
- Diisopropylcarbinol** (*sec-heptylic alcohol*) [b.p. 131°] (POLETÉEFF), 1889, A., 477.
- properties of (POLETÉEFF), 1891, A., 889.
- Diisopropylcarbinyllic acetate**, properties of (POLETÉEFF), 1891, A., 889.
- Dipropyl-*m*-cresol** (MAZZARA), 1883, A., 463.
- Diisopropyl-*m*-cresol** and its derivatives (MAZZARA), 1883, A., 463.
- Dipropyldiphenyldiketodihydro-*p*-diazinecarboxylic acid** (ABENIUS), 1890, A., 270.
- Diisopropyldipyrrole** (DENNSTEDT), 1889, A., 401.
- Dipropyldisulphide-*γ*-diphthalamic acid** (GABRIEL and LAUER), 1890, A., 472.
- Dipropyldisulphobenzoic acid**, barium salt of (STENGEL), 1883, A., 1000.
- β*-Dipropylene** (*hexylene*) (COUTURIER), 1891, A., 282.
- Dipropylethylenedisulphone** (OTTO and CASANOVA), 1888, A., 255.
- Dipropylglutaric acid** (GUTHZEIT and DRESSEL), 1890, A., 879.
- Dipropylglycollic acid** (KLINGER and SCHMITZ), 1891, A., 891.
- Dipropylglyoxaline** (*oxalpropylbutylene*) (RIEGER), 1889, A., 119.
- Dipropylhomo-*o*-phthalic acid** and anhydride (LE BLANC), 1889, A., 256.
- Dipropylhomo-*o*-phthalimide** (LE BLANC), 1889, A., 256.
- Dipropylhydroxypropylamine** and its platinochloride (LIEBERMANN and PAAL), 1883, A., 910.
- Dipropyllic dichloroglycollate** (ANSCHÜTZ and SCHÖNFELD), 1886, A., 786.
- Diisopropyllic ammonium nitrite** (VAN DER ZANDE), 1889, A., 954.
- glycol (FOSSEK), 1884, A., 37.
- 3:3'-Diisopropylindole** (DENNSTEDT), 1889, A., 401.
- Dipropylmethane**. See Heptane.
- Dipropyl- and diisopropyl- nitramines** (SIMON-THOMAS), 1891, A., 168.
- Diisopropylnitrosamine** (VAN DER ZANDE), 1889, A., 954.
- Dipropyl- and diisopropyl-pimelic acids** (PERKIN and PRENTICE), 1891, T., 838, 840.
- ωω'*-Dipropyl- and *ωω'*-diisopropyl-pimelic acids**, dissociation constants of (WALKER), 1892, T., 701, 702.
- Dipropylpropylenidic oxide** (SCHUDEL), 1884, A., 1283.
- Diisopropylsuccinic acid** (HELL and MAYER), 1889, A., 373.
- Dipropyl-*α*-sulphaminephthalate** (MOULTON), 1891, A., 1063.
- p*-Dipropylsulphonamide**, oxidation of (REMSEN and KEISER), 1884, A., 457.
- Dipropylsulphone** (SPRING and WINSINGER), 1883, A., 659.
- Di-*o*-propylsulphone** (WINSSINGER), 1888, A., 243.
- Diisopropylsulphonediethylmethane** (STUFFER), 1891, A., 180.
- Dipropylthiocarbamide** (HECHT), 1890, A., 476.
- Dipropylthiocarbanilide** (BILLETER and STROHL), 1888, A., 364.
- Dipropyltrimethylenetrisulphone** (CAMPS), 1892, A., 592.
- Protocatechuic acid** (SCHIFF), 1883, A., 335.
- Dipyre** from Connecticut (ARZRUNI), 1887, A., 903.
- Dipyridine** (*dihydrodipyridyl*) (WEIDEL and RUSSO), 1883, A., 483.
- description and measurement of the spectrum of (HARTLEY), 1885, T., 717.
- Dipyridine carbonyl bromo- and chloroplatinosis** (FOERSTER), 1892, A., 353, 352.
- copper sulphate (JÜRGENSEN), 1886, A., 857.
- silicotetrafluoride (COMEY and SMITH), 1888, A., 1283.
- Dipyridines**, actions of (OECHSNER de CONINCK), 1886, A., 898.
- Dipyridyl** (SKRAUP and VORTMANN), 1883, A., 88; (ROTH), 1886, A., 477.
- derivatives (SKRAUP and VORTMANN), 1883, A., 85.
- aa*-Dipyridyl** (BLAU), 1888, A., 728; 1889, A., 1212.
- β*-Dipyridyl** (LEONE and OLIVERI), 1886, A., 78.
- γ*-Dipyridyl** (AHRENS), 1891, A., 1093; and its derivatives (WEIDEL and RUSSO), 1883, A., 483.

- $\alpha\beta$ -Dipyridyl- $\beta$ -carboxylic acid** and its salts (SKRAUP and VORTMANN), 1883, A., 87.
- $\alpha\beta$ -Dipyridyl- $\beta\gamma$ -dicarboxylic acid** and salts of (SKRAUP and VORTMANN), 1883, A., 87; (SKRAUP and COBENZL), 1883, A., 1010.
- Dipyridyl- $\alpha\alpha$ -dicarboxylic acid** (HEUSER and STOEHR), 1892, A., 75.
- Dipyrogallocarboxylic acid** (SCHIFF), 1888, A., 840.
- Dipyrogallopropionic acid**, and its derivatives (BÜTTINGER), 1884, A., 318; 1890, A., 982.
- Dipyromeconic acid**, nitroso- (OST), 1883, A., 793.
- Dipropentylene** (ETARD and LAMBERT), 1891, A., 1085.
- Dipyrrol ketone** (CIAMICIAN and MAGNAGHI), 1885, A., 809.
- Dipyrulylanilidediphenylhydrazide** (MESSINGER and ENGELS), 1889, A., 36.
- Diquinaldyl** (*diquinaldine*). See Dimethyldiquinolyl.
- Diquinhydrone** (BARTH and SCHREDER), 1885, A., 521.
- Diquinidine** and its platinochloride (HESSE), 1883, A., 601.
- Diquinizine-blue** (KNORR), 1884, A., 1379.
- Diquinizinehydrobenzene**, action of nitrous acid on (KNORR and BÜLOW), 1884, A., 1381.
- Diquinol** (*tetrahydroxydiphenyl*) (BARTH and SCHREDER), 1885, A., 521.
- Diquinolyl** (*diquinolone*) (JELLINEK), 1886, A., 1045.
- preparation of (TRESIDDER), 1884, A., 84.
- Diquinolyl** [m.p. 144°], and its derivatives (WEIDEL), 1887, A., 848.
- 2':2'-Diquinolyl**, derivatives of (WEIDEL and GLÄSER), 1886, A., 949.
- oxidation products of (WEIDEL and WILHELM), 1887, A., 979.
- 2':3'-Diquinolyl** (CARLIER and EINHORN), 1891, A., 83.
- $\alpha$ -Diquinolyl**, synthesis of, and its derivatives (OSTERMAYER and HENRICHSEN), 1885, A., 173.
- from azobenzene, and the action of nitric acid on (CLAUS and STEGELITZ), 1885, A., 173.
- constitution of (WEIDEL and STRACHE), 1886, A., 950.
- methochloride (OSTERMAYER), 1885, A., 672.
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- $\beta$ -Diquinolyl**, formation of, by aid of heat (ZIMMERMANN and MÜLLER), 1884, A., 1372.
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- $\alpha$ -m-Diquinolyls** and their salts (v. MILLER and KINKELIN), 1885, A., 1144.
- $\beta$ -Diquinolyl disulphonic acid** (WEIDEL and GLÄSER), 1886, A., 950; (FISCHER and VAN LOO), 1887, A., 64.
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- Diquinoylphenazine** (NIETZKI and SCHMIDT), 1888, A., 690.
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- p*-Ditolyl diketopiperazine (BISCHOFF), 1888, A., 727; (CONRAD and LIMPACH), 1888, A., 854.
- o*-Ditolyl- $\alpha$ - $\beta$ -diketopiperazine (BISCHOFF and NASTVOGEL), 1889, A., 1015.
- p*-Ditolyl- $\alpha$ - $\beta$ -diketopiperazine (BISCHOFF and NASTVOGEL), 1890, A., 1162.
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- p*-Ditolyldiisonitrosoethane** (HOLLEMAN), 1888, A., 456.
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- p*-Ditolylsulphonethylamine** and its derivatives (OTTO and DAMKÖHLER), 1885, A., 538.
- o*-Ditolyltetrazine** (RUHEMANN), 1890, T., 52.
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- p*-Ethoxycarbanil (KÖHLER), 1884, A., 1159.
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- $\beta$ -Ethoxymethylcrotonic acid (FRIEDRICH), 1883, A., 969.
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- α*-Ethoxymethylhydroquinoline (FISCHER), 1883, A., 1147.
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- β*-Ethoxynaphthalene (*naphthyl ethyl ether*), 1':4'-dinitro- (ONUFROWICZ), 1891, A., 321.
- β*-Ethoxynaphthalene, 1-nitro-, and action of ammonia on (WITTKAMPF), 1884, A., 1036.
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- α*-nitroso- (v. ILINSKI), 1886, A., 474.
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- Ethoxynaphthazine (AUTENRIETH and HINSBERG), 1892, A., 733.
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- Ethoxynaphthyl phenyl ketone (*benzoyl-α-ethoxynaphthalene*) (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.
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- β*-Ethoxynaphthyllic *mono*- and *di*-sulphides (ONUFROWICZ), 1891, A., 322.
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- p*-Ethoxyphenylamidooacetic acid (BISCHOFF and NASTVOGEL), 1889, A., 1011.
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- p*-Ethoxyphenylcarbamide (BERLINERBLAU), 1885, A., 148.
- o*-Ethoxyphenylchloroacrylic acid (FITTIG and CLAUS), 1892, A., 989.
- Ethoxyphenylcyanamides, *o*- and *p*- (BERLINERBLAU), 1885, A., 148.
- 1-*p*-Ethoxyphenyl-2:3-dimethylpyrazolone (STOLZ), 1892, A., 1080.
- m*-Ethoxy-*o*-phenylenediamine (AUTENRIETH and HINSBERG), 1892, A., 160.
- Ethoxyphenylethyl-*p*-tolylamine (HATSCHKE and ZEGA), 1886, A., 456.
- p*-Ethoxyphenylhydrazine and its salts (STOLZ; ALTSCHUL), 1892, A., 1080, 1081.
- p*-Ethoxyphenylhydrazinesulphonic acid and its salts (ALTSCHUL), 1892, A., 1082, 1081.
- 2-*p*-Ethoxyphenyl-6-hydroxy-4:5-dimethyl-*m*-diazine and -4:5-methylethyl-*m*-diazine (PINNER), 1891, A., 64.
- Ethoxyphenylic sulphide (TASSINARI), 1892, A., 1316.
- p*-Ethoxyphenylimidodiacetic acid, ethoxyanilide of (BISCHOFF and NASTVOGEL), 1889, A., 1012.
- 1-Ethoxyphenyl-3-methyl-5-pyrazolone (STOLZ), 1892, A., 1080.
- 5-Ethoxy-1-phenyl-3-methyl-6-pyridazone (ACH), 1890, A., 71.
- Ethoxyphenylnaphthastilbazonium chloride, action of heat and of ammonia on (WITT and SCHMIDT), 1892, A., 1247.
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- Ethoxyphenyl-*o*-naphthylenediamine (WITT and SCHMIDT), 1892, A., 863.
- o*-Ethoxyphenylpropionic acid (FITTIG and CLAUS), 1892, A., 989.
- 3-Ethoxy-1-phenylpyrazoline, 4-bromo- (FISCHER and KNOEVENAGEL), 1887, A., 933.
- Ethoxyphenylisoquinoline (GABRIEL), 1886, A., 631.
- Ethoxyphenylthiocarbamide (TIERMANN), 1889, A., 1165; (VOLTMER), 1890, A., 1126; 1891, A., 558.
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- Ethoxyphenyltoluenesulphonic acid, *diamido*- (WEINBERG), 1888, A., 286.
- p*-Ethoxyphenyl-*p*-tolylethylamine (HATSCHKE and ZEGA), 1886, A., 457.
- p*-Ethoxyphenylurethane and some of its derivatives (KÖHLER), 1884, A., 1159.
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- p*-Ethoxypiazthiole (AUTENRIETH and HINSBERG), 1892, A., 734.
- $\alpha$ -Ethoxypropanilide (BISCHOFF and HAUSDÖRFER), 1892, A., 1337.
- $\alpha$ -Ethoxypyridine (V. PECHMANN and BALTZER), 1892, A., 209.
- $\alpha$ -(?)Ethoxypyridine, *dichlor*- (KÖNIGS and GEIGY), 1884, A., 1369.
- $\beta$ -Ethoxypyridine (FISCHER and RENOUEF), 1884, A., 1370; (WEIDEL and BLAU), 1886, A., 77.
- 6-Ethoxypyridine, 2:3:5-trichloro-4-amido- (STOKES and V. PECHMANN), 1887, A., 157.
- 6-Ethoxy-2-pyridone-3:5-dicarboxylic acid (GUTHZEIT and DRESSSEL), 1889, A., 861.
- 3-Ethoxyquinol (WILL and PUKALL), 1887, A., 661.
- 1-Ethoxyquinoline (FISCHER), 1883, A., 1146; (FISCHER and RENOUEF), 1884, A., 1049.
- 1-Ethoxyquinoline, derivatives of (VIS), 1892, A., 1105.
- 4-amido- (VIS), 1892, A., 1105.
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- $\alpha$ -Ethoxy- $\beta$ -quinolinecarboxylic acid (FRIEDLÄNDER and GÖHRING), 1884, A., 1020.
- 3-Ethoxy-1:4-quinone (WILL and PUKALL), 1887, A., 661.
- 3-Ethoxyquinone, 6-chloro-2:5-diamido- (KEHRMANN), 1891, A., 904.
- p*-Ethoxyquinoxaline (AUTENRIETH and HINSBERG), 1892, A., 732.
- p*-Ethoxyquinoxalinedicarboxylic acid (AUTENRIETH and HINSBERG), 1892, A., 733.
- o*-Ethoxystyrene,  $\alpha$ -brom- (FITTIG and CLAUS), 1892, A., 989.
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- Ethoxysuberic acid and its salts (HELL and REMPEL), 1885, A., 755; (HEMPEL), 1885, A., 756.
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- $\alpha$ -Ethoxy-*ar*-tetrahydronaphthalene (BAMBERGER and BORDT), 1890, A., 509.
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- 2-Ethoxytoluene (*tolyl ethyl ether*), preparation of (STAEDEL), 1883, A., 585.
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- 3-Ethoxytoluene, 4:6-dinitr- and 2:4:6-trinitr- (STAEDEL and KOLB), 1891, A., 187.
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- o*-Ethylamidobenzamide (FINGER), 1888,  
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- Ethylamidocarbamidobenzoic acid, and  
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- $\alpha$ -Ethylamido- $\alpha$ -naphthaphenazine  
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- $\alpha$ -Ethyleinchonic acid** (DOEBNER), 1887, A., 504.
- $\alpha$ -Ethyleinnamaldehyde**, *m*-nitro- (v. MILLER and ROHDE), 1889, A., 984.
- Ethyleinnamylamide**,  $\beta$ -brom- (EL- FELDT), 1892, A., 215.
- Ethyleinnamylhydantoin** (PINNER and SPILKER), 1889, A., 705.
- Ethyleitraconic acid** and anhydride (FITTIG), 1891, A., 453.
- Ethyl-*d*-cocaine aurochloride** (EINHORN and MARQUARDT), 1890, A., 913.
- 1-Ethylcomenamic acid** (*dihydroxyethyl- pyridinecarboxylic acid*) (MENNEL), 1885, A., 1203.
- Ethyleoumaric acid** (EBERT), 1883, A., 472.
- $\alpha$ -Ethylcoumarin** (FITTIG and BROWN), 1890, A., 777.
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- Ethylcoumarinic acid** and its salts (EBERT), 1883, A., 471.
- Ethylcoumarinic *dibromide*** (FITTIG and CLAUS), 1892, A., 989.
- $\alpha$ -Ethylcoumaroxime** and its acetate (ALDRINGEN), 1890, A., 624.
- $\alpha$ -Ethylcoumarphenylhydrazide** (ALD- RINGEN), 1890, A., 624.

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- Ethylene chlorhydrin**, preparation of (LADENBURG), 1883, A., 1077; (BOUCHARDAT), 1885, A., 498.  
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- Ethylene diketones**, aromatic (CLAUS, WERNER, SCHLARB and MURTFELD), 1887, A., 827.
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- Ethyleneaniline**, condensation of, with aldehydes (MOOS), 1887, A., 577.
- Ethylenauramine** (FEHRMANN), 1888, A., 157.
- Ethylenebisbenzoyl-*o*-carboxylic acid**, action of amines on (BAUMANN), 1887, A., 735.
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- Ethylenebisphenylmethylammonium bromide**, and its salts (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1318.
- Ethylenebisphenylmethylpyrazolone** (*ethylenedimethyloxyquinizine*) (PERKIN and OBREMSKY), 1886, A., 936.
- Ethylenebistolylmethylamine**, and its salts (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1318.
- Ethylenebistolylmethylammonium bromide** (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1317.
- Ethylenecarbamide** (FISCHER and KOCH), 1886, A., 528.
- Ethylenecarbamide**, *dinitr-* (FRANCHIMONT and KLOBBIE), 1888, A., 1180.
- Ethylene- $\psi$ -carbamide** (GABRIEL), 1889, A., 849.
- Ethylenediamine**, action of, on acetyl-acetone (COMBES), 1889, A., 851.  
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- Ethylenediamine**, action of, on *ethylidibromosuccinate* (FORSSELL), 1891, A., 1004.  
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- Ethylenedipthalimide** (GABRIEL), 1887, A., 1037.
- Ethylenediquinoline** (WARTANIAN), 1891, A., 330.
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- Ethylenemidothiocarbamate hydrobromide** (ANDREASCH), 1888, A., 665.
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- Ethylethenyltolylenediamine** (HINSBERG), 1887, A., 817.
- Ethyleuxanthones** (HERZIG), 1892, A., 1355.
- Ethylformanilide** (PICTET and CRÉPEUX), 1888, A., 689; (PICTET), 1890, A., 758.
- Ethylisoformanilide** (COMSTOCK and CLAPP), 1892, A., 708.
- Ethylformimide**, and its derivatives (PINNER), 1883, A., 731.
- Ethyl-fumaramic acid** and **-fumarimide** (PIUTTI), 1889, A., 591, 590.
- Ethylfurfuraldoxime** (ODERNHEIMER), 1884, A., 585.
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- Ethylglutaconic acid** (GUTHZEIT and DRESSEL), 1891, A., 179.
- m*-**Ethylglycolylamidocuminic acid** (ABENIUS), 1890, A., 270.
- Ethylglycolyl-*p*-toluidide** (ABENIUS), 1888, A., 854; 1890, A., 269.
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- Ethylglycuronic acid**, *trichlor-* (KÜLZ), 1885, A., 283.
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- p*-**Ethylglyoxaline** (*oxalpropylene*), synthesis of (RADZISZEWSKI), 1883, A., 729.
- Ethyl-hemipinamic acid** and **-hemipinisoimide** (GOLDSCHMIEDT), 1888, A., 1117.
- Ethylhexadecyl** (*ethylcetyl*) from ethylic and hexadecylic iodides (SORABJI), 1885, T., 40.
- Ethylhexadecyl-amine** and **-ammonium iodide** (KRAFFT and MOYE), 1889, A., 689.
- Ethylhexoimide hydrochloride** (PINNER), 1883, A., 1090.
- Ethylhexylglyoxaline** (*oxalethylcenanthylene*) (KARCY), 1887, A., 911.
- $\alpha$ -Ethylhomo-*o*-phthalimide** (*imide of  $\alpha$ -ethylcarboxyphenylacetic acid*) (GABRIEL), 1887, A., 1113.
- $\alpha$ -Ethylhomo-*o*-phthalonitrile** (GABRIEL), 1887, A., 1112.
- $\alpha$ -Ethylhomopiperidinic acid** (ASCHAN), 1891, A., 466.
- Ethylhydrastamide** (FREUND and HEIM), 1891, A., 92.
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- Ethylhydrastimide** (FREUND and HEIM), 1891, A., 92.
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- Ethylhydroberberine** (GAZE), 1890, A., 1012.  
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- Ethylhydrocarbazostyryl** (FISCHER and KUZEL), 1883, A., 1132; 1884, A., 442.
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*diamido*quinonedihydrocarboxylate (BÜNIGER), 1888, A., 954.

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decomposition products of (KIPPING and MACKENZIE), 1891, T., 569; P., 110.

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**Ethyllic diacetylenedicarboxylate** (V. BAeyer), 1885, A., 1198.

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$\alpha\beta$ -diacetylglutarate (KNORR), 1886, A., 332.

$\alpha\omega$ -diacetylhexoate (KIPPING and PERKIN), 1889, T., 333.

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diacetylmethyladipeate and its decomposition by heat (PERKIN and STENHOUSE), 1892, T., 73, 75.

**Ethyllic  $\alpha\omega$ -diacetyl- $\alpha$ -methylhexoate** (KIPPING and PERKIN), 1889, T., 345.

$\alpha\beta$ -diacetylpropionate (OSSIPOFF), 1890, A., 863.

diacetylacetate (PERKIN), 1887, T., 369.

**Ethyllic diacetylsuccinate**, action of, on ammonia and primary amines (KNORR), 1885, A., 554.

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**Ethyllic diacetyltartrate** (PERKIN), 1887, T., 368.

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diacetyltetramethylenedicarboxylate (PERKIN and OBREMSKY), 1886, A., 937.

$\alpha\omega$ -diacetylvalerate and hydrolysis of (PERKIN), 1890, T., 228, 229.

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diallyldicarboxyglutarate (GUTHZEIT and DRESSEL), 1890, A., 879.

diallylmalonate (MATVÉEFF), 1889, A., 124.

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dianilidosuccinate (GORODETZKY and HELL), 1888, A., 951.

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dibenzoylacetate (NEF), 1892, A., 145.

dibenzoylcomenamate (OST), 1885, A., 49.

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$\alpha\omega$ -dibenzoylhexoate (KIPPING and PERKIN), 1889, T., 347.

dibenzoylmethylacetate (PERKIN and STENHOUSE), 1891, T., 1005; P., 43.

**Ethylie  $\alpha$ -dibenzoyloxysuccinosuccinate** (NEF), 1890, A., 986.

**Ethylie dibenzoylsuccinate** (v. BAEYER and PERKIN), 1884, A., 838.

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preparation and properties of (PERKIN), 1885, T., 263.

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decomposition products of (PERKIN), 1885, T., 265.

**Ethylie dibenzylacetoacetate** (FITTIG and CHRIST), 1892, A., 963.

**$\alpha\alpha'$ -dibenzylacetonedicarboxylate** (DÜNSCHMANN and v. PECHMANN), 1891, A., 674.

**dibenzylcarbamate** (HAMMERICH), 1892, A., 1084.

**dibenzylidicarboxyglutarate** (GUTHZEIT and DRESSEL), 1890, A., 879.

**dibenzylidihydroxyterephthalate** (NEF), 1890, A., 986.

**dibenzylmalonate** (BISCHOFF and SIEBERT), 1887, A., 952.

**dibenzylpentanetetracarboxylate** (PERKIN and PRENTICE), 1891, T., 843.

**diisobutylamineoxalate** (MALBOT), 1891, A., 284.

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**dicarboxytetracarboxylate** (CONRAD and GUTHZEIT), 1883, A., 46; 1884, A., 297; (BISCHOFF and RACH), 1885, A., 244, 264; (BISCHOFF and HAUSDÖRFER), 1887, A., 916.

**dicarboxyglutaconate**, action of ammonia on (RUHEMANN and MORRELL), 1891, T., 745; 1892, T., 791.

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**dicinnamyleyanacetate** (HALLER), 1888, A., 1298.

**diethoxyacetoacetate** (ERLENBACH), 1892, A., 955.

**diethylacetoacetate**, action of ammonia on (JAMES), 1886, T. 58.

**Ethylie diethylacetoacetate**, condensation of benzaldehyde with (MATTHEWS), 1883, T., 205.

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**$\alpha\alpha'$  diethylacetonedicarboxylate** (DÜNSCHMANN and v. PECHMANN), 1891, A., 673.

**diethyl-*mono*- and -*di*-chloracetoacetates** (JAMES), 1886, T., 52, 54.

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**diethyleyanosuccinate** (ZELINSKY and BITSCHICHIN), 1889, A., 377.

**diethylidicarboxyglutarate** (GUTHZEIT and DRESSEL), 1890, A., 878.

**$\beta$ -diethyldisulphonebutyrate** (BAUMANN), 1887, A., 123.

**diethylethanetetracarboxylate** (BISCHOFF), 1888, A., 1061.

**diethylmalonate** (SCHUKOWSKI), 1888, A., 1179.

**diethylpentanetetracarboxylate** (PERKIN and PRENTICE), 1891, T., 833.

**diethylpimelate** (PERKIN and PRENTICE), 1891, T., 834.

**diethylprotocatechuate** (HERZIG), 1884, A., 846.

**dihydrodiamidopyromellitate** (NEF), 1890, A., 983.

**$\alpha$ -dihydrodibenzylidihydroxyterephthalate** (NEF), 1890, A., 986.

**dihydrodibenzoyldioxy-pyromellitate and -terephthalate** (NEF), 1890, A., 986, 987.

**dihydrogen hydrocamphorylmalonate** (WINZER), 1890, A., 1151.

**dihydrogen phosphate** (LOSSEN and KÖHLER), 1891, A., 1014.

**dihydroxybutanetetracarboxylate** (POLONOWSKY), 1888, A., 1067.

**dihydroxydicarboxyphenylacetate** (CORNELIUS and v. PECHMANN), 1886, A., 802.

**dihydroxydurylate** (NEF), 1888, T., 437.

***m*- $\alpha$ -dihydroxymethylcoumarilate** (LANG), 1887, A., 263.

**dihydroxypropionate** (CURTIUS and KOCH), 1889, A., 376.

**dihydroxypropyldicarboxyldiphenylalophanate** (WIDMAN), 1884, A., 1023.

**dihydroxypyromellitate** (NEF), 1888, T., 447.

**dihydroxyquinonedicarboxylate** (HANTZSCH and LOEWY), 1886, A., 354.

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- Ethylie dihydroxytartrate** (ANSCHÜTZ and GELDERMANN), 1891, A., 725; (ANSCHÜTZ and PARLATO), 1892, A., 1181.
- dihydroxyterephthalate** (NEF), 1890, A., 986.
- p-diketohexamethylenetetra-carboxylate** (NEF), 1887, A., 257; 1888, T., 455.
- derivatives of** (NEF), 1889, A., 509.
- diketohydrindenecarboxylate** (WISLIGENUS), 1888, A., 1193.
- dimethoxydiethylacetoacetate** (JAMES), 1886, T., 57.
- dimethoxyterephthalate** (NEF), 1890, A., 986.
- aa'-dimethylacetonedicarboxylate** (DÜNSCHMANN and v. PECHMANN), 1891, A., 674.
- 2:4-dimethyl-5-acetylpyrrole-3-carboxylate** (MAGNANINI), 1889, A., 57.
- dimethylamidobenzeneazophenyl-dimethylpyridinedicarboxylate** (LEPETIT), 1887, A., 1053.
- 2:6:4-dimethyl-isobutyl- and -isopropyl-hydropyridine-3:5-dicarboxylates** (ENGELMANN), 1886, A., 259.
- 2:6:4-dimethylisobutylpyridine-3:5-dicarboxylate** (ENGELMANN), 1886, A., 260.
- dimethylisobutyrylacetate** (WOHLBRÜCK), 1887, A., 1099.
- dimethyldicyano- adipate and -pimelate** (ZELINSKY), 1892, A., 430.
- dimethyldicyanoglutarate** (ZELINSKY), 1890, A., 132.
- dimethyldicarboxylglutarate** (GUTHZEIT and DRESSSEL), 1890, A., 878.
- αβ-dimethylglycidate** (MELIKOFF and ZELINSKY), 1888, A., 1056.
- 2:6:4-dimethylhexyl-pyridine-3:5-dicarboxylate and -hydropyridinedicarboxylate** (JAECKLE), 1888, A., 1104.
- dimethylhydropyridinedicarboxylate** (GRIESS and HARROW), 1888, A., 1313.
- dimethylic phosphate** (LOSSEN and KÜHLER), 1891, A., 1015.
- dimethylloxypyridinecarboxylate** (COLLIE), 1891, T., 174.
- brom-** (COLLIE), 1891, T., 175.
- dimethylpentanetetra-carboxylate** (PERKIN and PRENTICE), 1891, T., 829.
- aa'-dimethylpimelate** (KIPPING and MACKENZIE), 1890, P., 117; 1891, T., 571, 575; (PERKIN and PRENTICE), 1891, T., 831.
- Ethylie-2:6:4-dimethylpropyl-hydropyridine- and -pyridine-3:5-dicarboxylates** (JAECKLE), 1888, A., 1103, 1104.
- dimethylpyridinecarboxylate** [b.p. 260°] (CANZONERI), 1885, A., 751.
- αγ-dimethylpyridine-β-carboxylate** (MICHAEL), 1885, A., 1244.
- 2:6-dimethylpyridine-3:5-dicarboxylate** (ENGELMANN), 1886, A., 259.
- 2:6:4-dimethylpyridone-3:5-dicarboxylate** (CONRAD and GUTHZEIT), 1886, A., 334.
- 2:6:4-dimethylpyrone-3:5-dicarboxylate** (CONRAD and GUTHZEIT), 1887, A., 502; (PERATONER and STRAZZERI), 1891, A., 1334.
- action of ammonia and of primary amines on** (CONRAD and GUTHZEIT), 1887, A., 500.
- action of phosphoric sulphide on** (GUTHZEIT and EPSTEIN), 1887, A., 920.
- 2:5-dimethylpyrrolinocarboxylate, formation of** (HANTZSCH), 1890, A., 1155.
- 2:5-dimethylpyrroline-3:4-dicarboxylate** (KNORR), 1884, A., 1368; 1885, A., 248, 554, 994.
- 2:4-dimethylpyrroline-3:5-dicarboxylate** (KNORR), 1887, A., 276.
- antidimethylsuccinate** (BISCHOFF and VOIT), 1889, A., 490.
- dimethylsuccinosuccinate** (v. BAEYER), 1892, A., 1182.
- dimethyltetrazonedicarboxylate** (KLOBBIE), 1891, A., 293.
- dimethylthiazolecarboxylate** (HANTZSCH), 1889, A., 724.
- αβ-dimethylumbelliferonecarboxylate** (v. PECHMANN), 1892, A., 432.
- dioxysuccinate** (ANSCHÜTZ and PARLATO), 1892, A., 1181.
- diphenacylacetoacetate** (PAAL and HOERMANN), 1890, A., 258.
- diphenacylbenzoylacetate** (KAPF and PAAL), 1888, A., 839.
- diphenacylmalonate** (KUES and PAAL), 1887, A., 261.
- diphenoxymalonate** (CONRAD and BRÜCKNER), 1892, A., 40.
- diphenylacetosodacetate** (HODGKINSON), 1886, P., 189.
- diphenylanilidoacetate** (KLINGER and STANDKE), 1889, A., 885.
- diphenylazimethylenedicarboxylate** (CURTIUS and LANG), 1892, A., 453.
- diphenylcarbonyl-dibromo- and -dichloro-quinoldicarboxylates** (GOLDSCHMIDT and MEISSLER), 1890, A., 500, 499.

**Ethylie** diphenyl-chloracetate and -cyanacetate (BICKEL), 1889, A., 999.  
 5-diphenyl- $\alpha$ -dimethyldipyrrol-1-ethylene- $\beta$ -dicarboxylate (PAAL and SCHNEIDER), 1887, A., 273.  
 $\beta$ -diphenyl- $\alpha$ -ethylsulphonebutyrate (AUTENRIETH), 1891, A., 205.  
 $\alpha\alpha$ -diphenylfurfuran- $\beta$ -carboxylate (KAPF and PAAL), 1889, A., 148.  
 diphenylfurfurandicarboxylate (PERKIN and CALMAN), 1886, T., 167.  
 diphenylhydrazinediacetyladipeate (PERKIN), 1889, P., 141; 1890, T., 221.  
 diphenylimidodibenzylmalonate (JUST), 1886, A., 150.  
 $\beta$ -diphenylimidolactate (WEISE), 1889, A., 253.  
 diphenylizindiacetyladipeate (PERKIN and OBREMSKY), 1886, A., 936.  
 diphenylizin-diacetylsuccinate and -succinosuccinate (KNORR and BÜLOW), 1884, A., 1382, 1381.  
 $\beta$ -diphenyllactate (WEISE), 1889, A., 253.  
 diphenylmethanecarbamate (MANNS), 1889, A., 261.  
 1:5-diphenyl-3-methylpyrazole-4-carboxylate (KNORR and BLANK), 1885, A., 556.  
 1:3-diphenyl-5-methylpyrazole-4-carboxylate (KNORR and BLANK), 1885, A., 810.  
 diphenylpropionate (HENDERSON), 1891, T., 735.  
 diphenylpyrazolecarboxylate (BEYER and CLAISEN), 1887, A., 944.  
 2:6:4-diphenylpyrone-3:5-dicarboxylate (FEIST), 1891, A., 459; (DÜNSCHMANN and v. PECHMANN), 1891, A., 675.  
 2:5-diphenylpyrrole- $\beta$ -carboxylate (KAPF and PAAL), 1888, A., 840; 1889, A., 148.  
 diphenylisosuccinate, preparation of (HENDERSON), 1891, T., 731.  
 $\beta$ -diphenylsulphonebutyrate (AUTENRIETH), 1891, A., 204.  
 2:5-diphenyl-1-*o*- and *p*-tolylpyrrole-carboxylates (PAAL and BRAIKOFF), 1890, A., 263.  
 diphthalate (GRAEBE and JUILLARD), 1888, A., 154.  
 dipropyl-dicarboxyglutarate (GUTHZEIT and DRESSSEL), 1890, A., 878.  
 dipropyl- and diisopropyl-pentane-tetracarboxylates (PERKIN and PRENTICE), 1891, T., 836, 839.  
 dipropyl- and diisopropyl-pimelates (PERKIN and PRENTICE), 1891, T., 837, 840.

**Ethylie** disulphaminebenzoate (FAHLBERG and LIST), 1887, A., 836.  
 ditannacetoacetate (BÖTTINGER), 1892, A., 181.  
*p*-ditolylcarbamate (HAMMERICH), 1892, A., 1084.  
 1:2-*m*-ditolyl-3-methylpyrazolone-carboxylate (v. PERGER), 1886, A., 1046.  
 duroquinonecarboxylate (NEF), 1887, A., 255.  
 ecgonate (LIEBERMANN), 1891, A., 749.  
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 ethanetricarboxylate (BISCHOFF), 1883, A., 45; 1890, A., 742; (BISCHOFF and v. KÜHLBERG), 1890, A., 742.  
 physical constants of alkyl-derivatives of (BISCHOFF and WALDEN), 1890, A., 745.  
 ethoxy-acetoacetate and -chloracetoacetate (ERLENBACH), 1892, A., 954, 953.  
 ethoxyethylacetoacetate (ISBERT), 1886, A., 1010.  
 6-ethoxy-2-hydroxypyridine-3:5-dicarboxylate (GUTHZEIT and DRESSSEL), 1891, A., 939.  
 2'-ethoxy-4'-hydroxyquinoline-3'-carboxylate (BISCHOFF), 1889, A., 519.  
 ethoxyhydroxyquinoxalineacetate (AUTENRIETH and HINSBERG), 1892, A., 733.  
 ethoxymethylacetoacetate (ISBERT), 1886, A., 1010.  
 ethoxyoctoate (HANTZSCH), 1889, A., 372.  
 ethoxyoxalacetate (WISLICENUS and SCHEIDT), 1891, A., 545.  
 phenylhydrazone (WISLICENUS and SCHEIDT), 1892, A., 458.  
*o*-ethoxyphenylglycinate (VATER), 1884, A., 1144.  
 6-ethoxy- $\alpha$ -pyrone-3:5-dicarboxylate (GUTHZEIT and DRESSSEL), 1889, A., 860; 1891, A., 939.  
 6-ethoxy- $\alpha$ -pyridone-3:5-dicarboxylate (GUTHZEIT and DRESSSEL), 1891, A., 939.  
 $\beta$ -ethoxyquartenylate (KOLL), 1889, A., 488.  
 ethoxysuccinate (PURDIE), 1885, T., 866.

- Ethylie ethylacetoacetate**, magnetic rotation of (PERKIN), 1892, T., 809, 837.  
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 bromine derivatives of (WEDEL), 1884, A., 835.  
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- Ethylie ethylacetonedicarboxylate** (DÜNSCHMANN and v. PECHMANN), 1891, A., 673.  
 $\alpha$ -ethylacetylglutarate (FITTIG and CHRIST), 1892, A., 962.  
 $\beta$ -ethylacetylsuccinate, decomposition of (YOUNG), 1883, T., 172, 175; A., 456.  
 ethylbutanetricarboxylate (BISCHOFF and HJELT), 1888, A., 1057; (BISCHOFF and MINTZ), 1890, A., 744.  
 ethylisobutanetricarboxylate (BISCHOFF and MINTZ), 1890, A., 744.  
 ethylcomenamate hydrochloride (MENNEL), 1885, A., 1203.  
 ethylcyanacetate (HENRY), 1887, A., 796.  
 ethylcyanacetoacetate (HELD), 1884, A., 727; 1889, A., 1141.  
 ethyldicarboxylglutarate (GUTHZEIT and DRESSEL), 1891, A., 179.  
 $\alpha$ -ethyl- $\beta$ -diethyldisulphonebutyrate (AUTENRIETH), 1891, A., 205.  
 ethylenedi- $\beta$ -amido- $\alpha$ -crotonate (MASON), 1887, A., 494.  
 ethylenedi-amidoformate and its nitro-derivative (FRANCHIMONT and KLOBBE), 1889, A., 125.  
 ethylenecarbanilate (HANSEN), 1887, A., 578.  
 ethylenedicarbamate (RHOUSOPOULOS), 1891, A., 1195.  
 ethylenedicarbonate (WALLACH), 1885, A., 254.  
 ethylenephenoxybenzoates (WAGNER), 1884, A., 435.  
 $\alpha$ -ethylenetricarboxylate (BISHOP and PERKIN), 1891, P., 41.  
 ethylethanetetracarboxylate (BISCHOFF and RACH), 1885, A., 244.  
 ethylethanetricarboxylate (BARTHE), 1889, A., 588; (BISCHOFF and v. KUHLEBERG), 1890, A., 743.  
 ethylenediacetoacetate, magnetic rotation of (PERKIN), 1892, T., 810, 837.  
 ethylenedimaleonate and -dimalonate (KOMNENOS), 1884, A., 422.  
 ethylimidophenylethylthiocarbamate (BERTRAM), 1890, A., 1291; 1892, A., 466.
- Ethylie ethylmalonate** (DAIMLER), 1887, A., 360.  
 ethyloxalacetate (ARNOLD), 1888, A., 1179.  
 ethylpiperidinebetainesalts (KRÜGER), 1891, A., 943.  
 ethylpropanetricarboxylate (BISCHOFF and MINTZ), 1890, A., 743.  
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 ethylurethanephenylacetate (KOSSEL), 1892, A., 469.  
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 $o$ -formate (HULLEMAN), 1890, A., 582.  
 formylacetate. See Ethylie  $\beta$ -hydroxyacrylate.  
 fulminurate (SEIDEL), 1892, A., 690.  
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- Ethylie fumarate**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.  
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- Ethylie furfuralbenzoylacetate** (PERKIN and STENHOUSE), 1891, T., 1011.  
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 $\beta$ -furfurylamidocrotonate (BIGINELLI), 1892, A., 57.  
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 glutaconate, action of ammonia on (RUHEMANN and MORRELL), 1891, T., 745.  
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 glycolate (MEYER), 1884, A., 992.  
 isoheptanetricarboxylate (FREER and PERKIN), 1888, T., 217.  
 $\alpha$ -heptheptoate (HAMONET), 1890, A., 235.  
 hexane-tetra- and deca-carboxylates (BISCHOFF), 1888, A., 1061.  
 hexanetricarboxylate (BISCHOFF and HJELT), 1888, A., 1057; (BISCHOFF and MINTZ), 1890, A., 744.



**Ethylie** hexamethylene-1:1:3:3-tetracarboxylate (PERKIN), 1891, T., 803.  
 hippuramidoacetate (CURTIUS), 1883, A., 339.  
 hippurate, synthesis of (CURTIUS), 1884, A., 1348.  
     action of sodium ethoxide on (RÜGHEIMER), 1889, A., 1210.  
     compound obtained by the action of sodium ethoxide on (RÜGHEIMER), 1892, A., 1002.  
*p*-homobenzenylamidoximecarboxylate (SCHUBART), 1890, A., 48.  
 homogentisate (WOLKOW and BAUMANN), 1891, A., 1129.  
 homo-*o*-phthalate (GABRIEL), 1887, A., 1112.  
 hydrazine-benzoate and -benzoylpyruvate (RODER), 1887, A., 150.  
 hydrazomethylthiazolecarboxylate (WOHMANN), 1891, A., 225.  
 hydrazopropionate (CURTIUS and LANG), 1892, A., 452.  
 hydrocamphorylmalonate (WINZER), 1890, A., 1151.  
 hydrochloranilate (NEF), 1890, A., 1271.  
 hydrogen adipate, dissociation constant of (WALKER), 1892, T., 712.  
 hydrogen camphorate, *allo*- (BRÜHL), 1892, A., 1102.  
 hydrogen carboxylanthranilate (SCHMIDT), 1888, A., 371.  
 hydrogen carbuvate (FEIST), 1889, A., 593.  
 hydrogen *ac*-*m*-crotonamidobenzoate (PELLIZZARI), 1891, A., 1485.  
 hydrogen dimethylmalonate, dissociation constant of (WALKER), 1892, T., 712.  
 hydrogen 2:6-dimethylpyridine-3:5-dicarboxylate (WEISS), 1886, A., 719.  
 hydrogen ethylmalonate, dissociation constant of (WALKER), 1892, T., 712.  
 hydrogen fumarate (PURDIE), 1885, T., 857.  
     preparation and properties of (SHIELDS), 1891, T., 736.  
     dissociation constant of (WALKER), 1892, T., 714.  
 hydrogen furfuralmalonate (MARCKWALD), 1888, A., 678.  
 hydrogen hemipinate (WEGSCHEIDER), 1891, A., 712.  
 hydrogen 2:6-hydroxyethoxypyridine-3:5-dicarboxylate (GUTHZEIT and DRESSEL), 1891, A., 939.  
 hydrogen hydroxyisophthalate (HÄHLE), 1891, A., 1369.  
 hydrogen maleate, preparation and properties of (SHIELDS), 1891, T., 740.

**Ethylie** hydrogen maleate, dissociation constant of (WALKER), 1892, T., 714.  
 hydrogen malonate, properties of (MASSOL), 1891, A., 1012.  
     dissociation constant of (WALKER), 1892, T., 711.  
     action of sodium ethoxide on (PURDIE), 1885, T., 873.  
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 hydrogen oxalate (ANSCHÜTZ), 1884, A., 296.  
 hydrogen oximidosuccinates, isomerism of (HANTZSCH and WERNER), 1890, A., 350; (CRAMER), 1891, A., 823.  
 hydrogen 4:2:6-phenyldimethylpyridine-3:5-dicarboxylate and its derivatives (HANTZSCH), 1885, A., 397.  
 hydrogen phenylsuccinimide (BLOCHMANN), 1887, A., 932.  
 hydrogen phthalate, dissociation constant of (WALKER), 1892, T., 714.  
 hydrogen propionenedicarboxylate (MARCKWALD), 1888, A., 678.  
 hydrogen sebate and suberate, dissociation constants of (WALKER), 1892, T., 713.  
 hydrogen succinate and isosuccinate, dissociation constants of (WALKER), 1892, T., 711, 712.  
 hydrogen sulphate, non-existence of the supposed modification of (REBS), 1888, A., 1156.  
     estimation of, in Rabel water (GAUTRAND), 1886, A., 1079.  
 hydrogen sulphide (KLASON), 1888, A., 356.  
 hydrogen 2:4:6-trimethylpyridine-3:5-dicarboxylate and its salts (MICHAEL), 1885, A., 61.  
 hydrogen  $\gamma$ -truxillate (LIEBERMANN), 1889, A., 1194.  
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 *$\beta$* -hydroxyacrylate (*ethylie formylacetate*) (WISLIGENUS), 1888, A., 129; (v. PECHMANN), 1892, A., 816.  
     acetyl- and benzoyl-derivatives of (v. PECHMANN), 1892, A., 817.  
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*p*-hydroxybenzoyl- $\alpha$ -methylfurfuran- $\beta$ -carboxylate (IKUTA), 1892, A., 611

- Ethyllic *m*-hydroxycoumarilate** (HANTZSCH), 1887, A., 262.
- 1:2:5-hydroxydimethylpyrrole-3:4-dicarboxylate** (KNORR), 1887, A., 275.
- hydroxydiphthalylate** (HASSELBACH), 1888, A., 486.
- hydroxymethylthiazolecarboxylate** (HANTZSCH and WEBER), 1888, A., 257.
- hydroxyisooxazolidicarboxylate** (V. PECHMANN), 1891, A., 738.
- hydroxyphenylacetate** (ALEXANDER), 1890, A., 1135.
- p*-hydroxyphenylacetate** (SALKOWSKI), 1889, A., 1173.
- m*-hydroxyphenyldimethylpyridine-dicarboxylate** (LEPETIT), 1887, A., 1053.
- 1:6-hydroxyphenyl-2:5-diphenylpyrrole-3-carboxylate** (PAAL and BRAIKOFF), 1890, A., 264.
- hydroxyphenylethenylamidoxime-carbonate** (GROSS), 1885, A., 1218.
- 6:2:4-hydroxyphenylmethyl-*m*-diazine-5-acetate- and -5-propionate** (PINNER), 1890, A., 69, 70.
- 4'-hydroxy-2'-phenyl-1- and -3-methylquinoline-3'-carboxylates** (JUST), 1886, A., 812.
- hydroxyquinolinecarbonate** (LIPPMANN), 1888, A., 164.
- hydroxytetrate** (CLOËZ), 1890, A., 739.
- hydroxytoluinoxalineacetate** (AUTENRIETH and HINSBERG), 1892, A., 709.
- $\gamma$ -hydroxyvalerate** (NEUGEBAUER), 1885, A., 651.
- hypochlorite** (SANDMEYER), 1885, A., 1045; 1886, A., 607.
- $\beta$ -imidobutyrate**. See Ethyllic  $\beta$ -amidocrotonate.
- imidocarbonate** (SANDMEYER), 1886, A., 611.
- action of, on aromatic ortho-compounds (SANDMEYER), 1887, A., 135.
- di*imidodiacetyladiquate** (PERKIN), 1889, P., 141.
- imidodicarboxylate** (KRAFT), 1891, A., 42.
- di*imidodiethyladiquate** (PERKIN), 1890, T., 218.
- imidophenyl-ethylthiocarbamate and -thiocarbamate** (BERTRAM), 1890, A., 1291; 1892, A., 466.
- imidosuccinamate** (HELL and POLIAKOFF), 1892, A., 820.
- indoledicarboxylate** (RODER), 1887, A., 150.
- iodacetate, chlor-** (HENRY), 1884, A., 421.
- Ethyllic iodacetoacetate** (SCHÖNBRODT), 1890, A., 28.
- Ethyllic iodide**, preparation of (WALKER), 1892, T., 717.
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- action of, on triethylamine, effect of various solvents on the velocity of (MENSCHUTKIN), 1890, A., 1366.
- Ethyllic iodopropargylate** (V. BAEYER), 1885, A., 1199.
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- itadibromopyrotartrate** (MICHAEL and SCHULTHESS), 1891, A., 1185.
- itachloropyrotartrate**, action of ethyllic sodomalonate on (MICHAEL and SCHULTHESS), 1892, A., 591.
- itaconate**, magnetic rotatory power of (PERKIN), 1887, P., 99; 1888, 584, 591.
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- ketacetate** (ERLENBACH), 1892, A., 955.
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- malate**, inactive (WISLICIENUS), 1892, A., 1431.
- Ethyllic maleate**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.
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- action of ethyllic sodomalonate on (MICHAEL and SCHULTHESS), 1892, A., 590.
- action of methylamine on (KÖRNER and MENOZZI), 1890, A., 869.
- action of sodium methoxide and ethoxide on (PURDIE), 1885, T., 867, 868.
- Ethyllic malonanilidate** (RÜGHEIMER and HOFFMANN), 1884, A., 1023.
- Ethyllic malonate**, action of fatty aldehydes on (KOMMENOS), 1884, A., 422.
- action of allylic iodide and zinc on (MARTINOFF and SCHUKOWSKI), 1888, A., 820; (MATVÉEFF), 1889, A., 124.

- Ethylie malonate**, action of benzaldehyde on (CLAISEN and CRISMER), 1884, A., 444.  
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- Ethylie mandelate** (BEYER), 1884, A., 65; (MICHAEL and JEANPRÉTRE), 1892, A., 1089.  
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- Ethylie mesoxalate** (CONRAD and BRÜCKNER), 1892, A., 40.  
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*o*-methoxybenzoylacetate (TAHARA), 1892, A., 844.  
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*p*-methoxyphenylamidocrotonate (CONRAD and LIMPACH), 1888, A., 853.  
*β*-methoxyquartenylate (ENKE), 1890, A., 865.  
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*β*-methylacetylsuccinate, action of nitrous acid on (THAL), 1892, A., 1074.  
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*α*-methyl-*β*-amidocrotonate (PETERS), 1890, A., 1097.  
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 $\beta$ -methylcoumarilate (HANTZSCH), 1886, A., 707.  
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 $\alpha$ - and  $\beta$ -naphthenylamidoximecarboxylates (RICHTER), 1890, A., 63, 62.  
 $\alpha$ -naphthindolecarboxylate (SCHLIEFER), 1887, A., 963.  
 $\beta$ -naphtholazophenyl dimethylpyridinedicarboxylate (LEPETIT), 1887, A., 1053.  
 $\alpha$ -naphtholcarboxylate (SCHMITT and BURKHARD), 1888, A., 59.  
 $\alpha$ - and  $\beta$ -naphthylamidoacetates (BISCHOFF and HAUSDÖRFER), 1892, A., 1341.  
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 $\alpha$ - and  $\beta$ -naphthylamidobutyrate (BISCHOFF and MINTZ), 1892, A., 1338.  
 $\alpha$ - and  $\beta$ -naphthylamidocrotonates (CONRAD and LIMPACH), 1888, A., 504.  
 $\alpha\alpha$ - and  $\alpha\beta$ -naphthylamido- $\alpha$ -cyanopropionates (GERSON), 1887, A., 261.  
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 $\beta$ -naphthylbenzenylmalonate (JUST), 1886, A., 617.  
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 1- $\beta$ -naphthyl-2:5-dimethylpyrrole-3:4-dicarboxylate (KNORR), 1885, A., 555.  
 1- $\alpha$ - and  $\beta$ -naphthyl-2:5-diphenylpyrrole-3-carboxylates (PAAL and BRAIKOFF), 1890, A., 263.  
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- Ethylic nitrite** (*nitrous ether*), estimation of, in "spirit of nitrous ether" and kindred preparations (ALLEN), 1885, A., 1013.  
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*p*-nitrobenzoylacetate (PERKIN and BELLENOT), 1886, T., 447.  
*p*-nitrobenzoylallylacetate (PERKIN and BELLENOT), 1885, A., 795; 1886, T., 451.  
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*o*-nitrobenzoylbenzylmalonate (BISCHOFF and SIEBERT), 1887, A., 952.  
*p*-nitrobenzoyl ethylacetate (PERKIN and BELLENOT), 1885, A., 794; 1886, T., 450.  
*o*-nitrobenzoylmalonate (BISCHOFF), 1883, A., 912.  
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*mono*- and *di*-nitrobenzoylmalonates (BISCHOFF and RACH), 1885, A., 264, 263.  
*di*-*p*-nitrobenzoylsuccinate (PERKIN and BELLENOT), 1885, A., 795; 1886, T., 452.  
*p*-nitrobenzoyl-tetramethylene- and -trimethylene-carboxylates (PERKIN and BELLENOT), 1885, A., 795.  
*p*-nitrobenzylcarbamate (HAFNER), 1889, A., 982; 1890, A., 487.  
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 $\alpha$ -nitroisobutyrate (KOLOTOFF), 1889, A., 1140.  
*o*- and *p*-nitrocinnamates, preparation of (STUART), 1883, T., 408.  
*di*nitrocinnamate (FRIEDLÄNDER and MÄHLY), 1885, A., 1137, 1138.  
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*o*-nitrocinnamylacetate (FISCHER and KUZEL), 1883, A., 587, 588.  
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*o*- and *p*-nitrodiphenylmethylpyrazenecarboxylates (KNORR and JÖDICKE), 1885, A., 1248, 1247.  
*mono*- and *di*-nitrohydroxybenzoates, action of ammonia on (THIEME), 1891, A., 915, 916.  
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*m*-nitromandelate (BEYER), 1885, A., 983.

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*p*-nitromethylcoumarilate (NUTH), 1887, A., 803.  
*p*-nitrobenzoylacetate (PERKIN and BELLENOT), 1886, T., 449.  
*d*-nitrophenylacetate, derivatives of (DITTRICH and MEYER), 1891, A., 1224; 1892, A., 178.  
*o*-*p*-*d*-nitrophenylacetoacetate (HECKMANN), 1884, A., 178.  
*tr*-nitrophenylacetoacetate (DITTRICH), 1890, A., 1418.  
*p*-nitrophenyldehydrohexonecarboxylate (PERKIN), 1887, T., 735.  
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4-*m*-nitrophenyl-2:6-dimethylpyridine-3:5-dicarboxylate (LEPETIT), 1887, A., 845.  
*tr*-nitrophenylenedimalonate (JACKSON and MOORE), 1890, A., 498.  
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*o*-nitrophenylglycollate (DUPARC), 1887, A., 948.  
*o*-nitrophenylic carbonate (BENDER), 1887, A., 38.  
*d*-nitrophenylmalonate (v. RICHTER), 1888, A., 1189.  
*d*-nitrophenyl-*m*-methylacetate (SEŃKOWSKI), 1889, A., 255.  
*o*-nitrophenyl-nitroso- and -*ison*-nitrosoacetates (GABRIEL), 1883, A., 920.  
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*d*-nitropyromellitate (NEF), 1888, T., 442.  
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 $\alpha\beta$ -*di*-nitrosobutyrate. See **Ethylie** methylsynglyoximecarboxylate.  
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nitrosocyanacetate (MULLER), 1891, A., 1450.  
*p*-nitrobenzoylacetate, action of trimethylenic bromide on (PERKIN), 1887, T., 702, 734.  
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**Ethylie oxalate**, preparation of (SCHATZKI), 1885, A., 512; 1887, A., 360.  
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 $\alpha$ - and  $\beta$ -naphthylhydrazides (FREUND), 1892, A., 511, 509.  
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 $p$ -tolylhydrazide (FREUND), 1892, A., 512.  
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 oxamidotolylloxamate (*oxamethanetolylloxamide*) (SCHIFF and VANNI), 1891, A., 908; 1892, A., 603.  
 $\alpha$ -oximepropionate (HANTZSCH and WOHLBRÜCK), 1887, A., 717.  
 oximidoacetate (CRAMER), 1892, A., 700.  
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 oximidosuccinate and its salts (EBERT), 1885, A., 1122; (PIUTTI), 1889, A., 383.  
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- $\beta$ -Ethylpyridine**, properties and derivatives of (STOEHR), 1891, A., 579; 1892, A., 629.
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- Hemialbumose** (KÜHNE and CHITTENDEN), 1884, A., 849; 1886, A., 819; (HERTH), 1884, A., 1388; 1886, A., 567; (AXENFELD), 1887, A., 1127.

- Hemialbumose** in urine (KÜHNE), 1884, A., 854.  
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- Hemihydroxyimidosulphonic acid**, lead salt of (DIVERS and HAGA), 1892, T., 970.
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- Hemipinic anhydride** (PERKIN), 1890, T., 1094.  
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- n*-**Heptoic acid** (*heptylic acid*; *ananthic acid*) (PERKIN), 1883, T., 48, 59, 69.  
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- Heptoic acid** (*methylbutylacetic acid*) (KILIANI), 1886, A., 438, 441.
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- Heptomethylamide** (FRANCHIMONT and KLOBBIE), 1888, A., 1063.
- Heptose** (FISCHER), 1890, A., 598.
- Heptoylsodacetaldehyde** (CLAISEN and STYLOS), 1888, A., 671.
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- Heptylbenzene** (KRAFFT), 1887, A., 253; (BALLY), 1888, A., 65.  
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- $\psi$ -**Heptylene** (*methylbutylethylene*) (SCHORLEMMER and THORPE), 1883, A., 652.  
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- Heptylenic acid** (*heptenoic acid*) (FITTING), 1888, A., 252; (FITTIG and SCHMIDT), 1890, A., 589.
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- n*-**Heptylic alcohol**, preparation of (SORABJI), 1885, T., 40.
- sec.*-**Heptylic alcohol** [b.p. 150°] (*diisopropylcarbinol*) (USTINOFF and SAYTZEFF), 1887, A., 353.  
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- Hessite** from Arizona (GENTH), 1888, A., 564.  
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- Hexabenzoylmannitol** (SKRAUP), 1889, A., 1152.
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- n*-**Hexadecane** (*dioctyl*) (LACHOWICZ), 1884, A., 166; (KRAFFT), 1886, A., 998.
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- Hexadecylacetylene** (KRAFFT and REUTER), 1892, A., 1164.
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- Hexadecylbenzene** and its derivatives (KRAFFT), 1887, A., 252.
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- Hexadecylenedicarboxylic acid** and anhydride (KRAFFT and GROSJEAN), 1890, A., 1219.
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- Hexadecylic alcohol** (*cetyllic alcohol*) (KRAFFT), 1884, A., 1280.  
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- Hexadecylmalonic acid** (KRAFFT), 1884, A., 1280.
- Hexadecylphenetol** (KRAFFT and GÜTTIG), 1889, A., 129.
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- Hexahydrodimethyldiazine** (STOEHR), 1892, A., 507.
- Hexahydrohæmatoporphyrin** (NENCKI and SIEBER), 1885, A., 70.
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- Hexahydronicotinic acid** (*nipecotinic acid*) and its derivatives (LADENBURG), 1891, A., 735; 1892, A., 1485, 1486.
- Hexahydroisonicotinic acid** (*isonipecotinic acid*) (LADENBURG and KARAU; LADENBURG), 1892, A., 1486.
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- trans*-**Hexahydrophthalic acid**, *di*-bromo- (v. BAEYER), 1892, A., 1216.
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- Hexahydropicolinic acid** (OST), 1883, A., 794.
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- Hexahydropyridinecarboxylic acid** (MARINO-ZUCO), 1892, A., 85.
- Hexahydroquinoline** (BAMBERGER and LENGELD), 1890, A., 1320.
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- cistrans*-**Hexahydroterephthalic acid**, synthesis of (MACKENZIE and PERKIN), 1892, T., 172; P., 12.
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- Hexahydroxyaurin** (CARO), 1892, A., 1470.
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- $\delta$ -**Hexahydroxydiphenyl** (BARTH and SCHREDER), 1885, A., 520.
- Hexahydro-xylene** from Caucasian petroleum (MARKOWNIKOFF and SPADY), 1887, A., 922.
- Hexahydroxy-methylenediamine** and -methylenic peroxide (LEGLER), 1886, A., 327.
- Hexamethoxy-benzil** and -benzilic acid (MARX), 1891, A., 1219.
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- sec.*-Hexane (*methyl-diethylmethane*) (WISLICENUS), 1883, A., 966.
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- Hexa-oxymethylenic peroxide and -oxymethylenediamine (LEGLER), 1889, A., 579.
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- Hexaphenylmelamine (v. HOFMANN), 1886, A., 41, 233.
- Hexaphenylrosaniline and its salts (HEYDRICH), 1886, A., 553.
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- Hexarabinan-tri- and -penta-galactangeddide acids (O'SULLIVAN), 1891, T., 1065, 1074.
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- Hexenoic acid (*hydrosorbic acid*) (FITTIG), 1888, A., 595; (FITTIG and HILLERT), 1892, A., 959. (*methylethylacrylic acid*) and its salts (LIEBEN and ZEISEL), 1883, A., 571. (*γ-pyroterebic acid*) (ERDMANN), 1885, A., 964. (*α-ethylcrotonic acid*), oxidation of (FITTIG), 1888, A., 595; (FITTIG and RUER), 1892, A., 958.
- Hexenoic acids, thio- (*β-ethyl-n-* and *-iso-crotonic acids*, thio-) (AUTENRIETH), 1890, A., 361.
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- Hexenylamidoxime and its derivatives (JACOBY), 1886, A., 785.
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***m*-Hydroxyanthraquinone** (A. G. and W. H. PERKIN), 1885, T., 680.

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ethylate, nitro- and amido- (LIEBERMANN and HAGEN), 1883, A., 73.

**Hydroxyanthraquinone dyes** (LIEBERMANN and WENSE), 1887, A., 593.

**Hydroxyanthraquinones**, syntheses of (LIEBERMANN and v. KOSTANECKI), 1886, A., 474.

ethyl-derivatives of (LIEBERMANN and JELLINEK), 1888, A., 715.

**Hydroxy-aurins and aurincarboxylic acids** (CARO), 1892, A., 855, 1469.

**Hydroxyazelaic acid** (BUJARD and HELL), 1889, A., 376.

**Hydroxyazo-**. See Azo-

**Hydroxyazophenine** (FISCHER and HEPP), 1887, A., 1105; (KÖHLER), 1888, A., 587.

***m*-Hydroxybenzaldehyde** and some of its derivatives (TIEMANN and LUDWIG), 1883, A., 188; (LUDWIG), 1885, A., 663; (CLEMM), 1891, A., 699.

$\alpha$ -,  $\beta$ - and  $\gamma$ -nitro- (TIEMANN and LUDWIG), 1883, A., 189, 586.

***o*-Hydroxybenzaldehyde**. See Salicylaldehyde.

***p*-Hydroxybenzaldehyde**, heat of solution of (BERTHELOT), 1885, A., 1177.



- p*-Hydroxybenzaldehyde, action of zinc chloride on (BOURQUIN), 1884, A., 1164.
- m*-nitro- (SCHÖPFF), 1892, A., 336.
- Hydroxybenzaldehydes, nitro-, and their methyl-derivatives (TIEMANN), 1889, A., 1168.
- o*-Hydroxybenzaldehydeacetic acid, dithio- (BONGARTZ), 1886, A., 937.
- Hydroxybenzaldehydephenylhydrazones, *m*- and *p*- (RUDOLPH), 1889, A., 251, 252.
- p*-Hydroxybenzaldoxime (LACH), 1883, A., 1104.
- p*-Hydroxybenzamide, reduction of (HUTCHINSON), 1890, T., 957.
- Hydroxybenzenes, heat equivalent of (STOHMANN), 1886, A., 655.
- heat equivalent of the hydroxyl-groups in (STOHMANN), 1886, A., 656.
- condensation of, with nitrobenzaldehydes (SIBONI), 1892, A., 621.
- m*-Hydroxybenzenylamidoxime (CLEMM), 1891, A., 699.
- p*-Hydroxybenzenylamidoxime (KRONE), 1891, A., 700.
- Hydroxybenzenylazo-. See Azo-.
- m*-Hydroxybenzenylphenylhydrazone (CLEMM), 1891, A., 699.
- o*-Hydroxybenzhydrazoine (CORNELIUS and HOMOLKA), 1886, A., 1026.
- p*-Hydroxybenzide and its derivatives (KLEPL), 1884, A., 446.
- Hydroxybenzidine. See Hydroxydiamidodiphenyl.
- o*-Hydroxybenzoic acid. See Salicylic acid.
- m*-Hydroxybenzoic acid, absorption spectrum of (HARTLEY), 1888, T., 658.
- action of baryta on (KLEPL), 1883, A., 664.
- action of phosphoric chloride on (ANSCHÜTZ and MOORE), 1887, A., 947.
- sodium salt of, action of phosphorus oxychloride on (RICHTER), 1884, A., 325.
- m*-Hydroxybenzoic acid, 4-amido- (LIMPRICHT), 1891, A., 1037.
- tri*- and *tetra*-chloro- (ZINCKE and WALBAUM), 1891, A., 709.
- iodo- (LIMPRICHT), 1891, A., 1037.
- nitro-derivatives (GRIESS), 1887, A., 485.
- 2-nitro- (THIEME), 1891, A., 917.
- p*-Hydroxybenzoic acid, absorption spectrum of (HARTLEY), 1888, T., 661.
- dry distillation of (KLEPL), 1884, A., 446.
- p*-Hydroxybenzoic acid, action of phosphoric chloride on (ANSCHÜTZ and MOORE), 1887, A., 947.
- calcium salt of, products of the distillation of (GOLDSCHMIEDT), 1883, A., 664.
- sodium salt of, action of phosphorus oxychloride on (RICHTER), 1884, A., 325.
- p*-Hydroxybenzoic acid, dibromo- (BALBIANO), 1883, A., 1125.
- constitution of (ALESSI), 1886, A., 65.
- dichloro- (CLAUS and RIEMANN), 1883, A., 1112; (ZINCKE and WALBAUM), 1891, A., 710.
- nitro-derivatives (GRIESS), 1887, A., 485.
- Hydroxybenzoic acids, electrical conductivity of (BERTHELOT), 1890, A., 677.
- heats of combustion and formation of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.
- heats of formation and transformation of (BERTHELOT and WERNER), 1885, A., 1103.
- heats of neutralisation and solution of (BERTHELOT and WERNER), 1885, A., 1032.
- action of heat on (GRAEBE and EICHENGRÜN), 1892, A., 1208.
- action of aniline on substitution derivatives of (LIMPRICHT), 1890, A., 158; (SEIFERT), 1890, A., 490.
- action of chlorine on (ZINCKE and WALBAUM), 1891, A., 708.
- action of diazo-compounds with (ZIBELL), 1891, A., 1473.
- action of iodine on, in alkaline solution (MESSINGER and VORTMANN), 1889, A., 1151.
- nitration of, with nitrous acid (DENINGER), 1891, A., 307.
- inversion of cane sugar by (KORAL), 1886, A., 932.
- azo-dyes from (V. KOSTANECKI and ZIBELL), 1891, A., 1038.
- ammonium and aniline salts of, electrical conductivities of the (BERTHELOT), 1890, A., 1039.
- ethylene ethers of (WAGNER), 1884, A., 433.
- o*-Hydroxybenzonitrile (MEYER), 1888, A., 266; (TIEMANN), 1888, A., 276.
- p*-Hydroxybenzonitrile (KLEPL), 1884, A., 447.
- o*-Hydroxybenzophenone (HEIBER), 1892, A., 309.
- Hydroxybenzophenones, *m*- and *p*-, and their oximes (SMITH), 1892, A., 489, 490.

- Hydroxybenzotropeine** and its salts (LADENBURG), 1883, A., 671.
- p*-**Hydroxybenzoyl-*p*-hydroxybenzoic acid** (KLEPL), 1884, A., 447.
- p*-**Hydroxybenzoylpiperidine** (SCHOTTEN), 1888, A., 1106.
- o*-**Hydroxybenzylacetamide** (GOLDSCHMIDT and ERNST), 1890, A., 1411.
- o*-**Hydroxybenzylamine** (*salicylamine*) (GOLDSCHMIDT and ERNST), 1890, A., 1411; (TIEMANN), 1891, A., 50.
- p*-**Hydroxybenzylamine** (SALKOWSKI), 1889, A., 1173.
- Hydroxybenzylanilines**, *o*- and *p*- (EMMERICH), 1888, A., 50, 51.
- Hydroxy-*m*-benzylbenzoic acid** (*m-benzhydrylbenzoic acid*) and its salts (SENEFF), 1884, A., 428.
- o*-**Hydroxybenzylcarbamide** (GOLDSCHMIDT and ERNST), 1890, A., 1411.
- 4-Hydroxy-6-benzyl-*m*-diazine-2-carboxylic acid** (PINNER), 1889, A., 1008.
- 6-Hydroxy-2-benzyl-4:5-dimethyl-*m*-diazine** (PINNER), 1889, A., 1008.
- δ-Hydroxy- $\gamma$ -benzylhexoic acid**, lactone of (FITTIG and CHRIST), 1892, A., 963.
- 2-Hydroxybenzyl-6-hydroxy-4-methyl-*m*-diazine** (PINNER), 1891, A., 63.
- 2-Hydroxybenzyl-6-hydroxy-4-methyl-5-ethyl-*m*-diazine** (PINNER), 1891, A., 63.
- o*-**Hydroxybenzyl alcohol**. See Saligenin.
- p*-**Hydroxybenzyl alcohol** (BIEDERMANN), 1887, A., 38.
- cyanide** (SALKOWSKI), 1884, A., 1175; 1889, A., 1173.
- Hydroxybenzylidene compounds** (EMMERICH), 1888, A., 50.
- o*-**Hydroxybenzylideneamidobenzamide** (SCHIFF), 1884, A., 455.
- Hydroxybenzylideneamidodimethylanilines**, *o*- and *p*- (NUTH), 1885, A., 784.
- o*-**Hydroxybenzylidene-*p*-amidodiphenylamine** (HENCKE), 1890, A., 609.
- Hydroxybenzylidene-*o*- and -*p*-amidophenols** (HAEGELE), 1892, A., 1451.
- o*-**Hydroxybenzylideneazaine** (CURTIUS and JAY), 1889, A., 393.
- o*-**Hydroxybenzylidenebisthioglycollic acid** (BONGARTZ), 1888, A., 478.
- p*-**Hydroxybenzylidenediacetonamine oxalate** (ANTRICK), 1885, A., 503.
- Hydroxybenzylidenediphenylmaleide** (COHN), 1892, A., 483.
- Hydroxybenzylidenefenchylamine** (WALLACH and GRIEPENKERL), 1892, A., 1239.
- m*-**Hydroxybenzylidene-4'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 1114.
- p*-**Hydroxybenzylidene-4'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 852.
- p*-**Hydroxybenzylidene-2'-methylquinoline** (BULACH), 1889, A., 528.
- p*-**Hydroxybenzylidenepinylamine** (WALLACH and LORENTZ), 1892, A., 997.
- 6-Hydroxy-2-benzyl-4-methyl-*m*-diazine** (PINNER), 1889, A., 1007.
- 6-Hydroxy-2-benzyl-4-methyl-5-ethyl-*m*-diazine** (PINNER), 1889, A., 1008.
- o*-**Hydroxybenzyl-4'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 852, 1113.
- p*-**Hydroxybenzyl-4'-methylquinoline** (HEYMANN and KOENIGS), 1888, A., 852.
- Hydroxybenzyl- $\beta$ -naphthylamines** and  $\beta$ -naphthylnitrosamines, *o*- and *p*- (EMMERICH), 1888, A., 51.
- o*-**Hydroxybenzylphenylcarbamide** (GOLDSCHMIDT and ERNST), 1890, A., 1412.
- Hydroxybenzylphosphinic acid** (FOSSEK), 1886, A., 530.
- Hydroxybenzylphosphinous acid** (VILLE), 1890, A., 618.
- p*-**Hydroxybenzylphthalimidine** (HAFNER), 1889, A., 983; 1890, A., 487.
- Hydroxybenzylphthalimidine**, nitro- (GABRIEL), 1885, A., 1230.
- Hydroxybenzylpyrotartaric acid** (*phenylthomoitaemic acid*), calcium salt of (PENFIELD), 1883, A., 473.
- p*-**Hydroxybenzylsulphonic acid** (MOHR), 1884, A., 69.
- p*-**Hydroxybenzylthiocarbimide** (SALKOWSKI), 1889, A., 1174.
- o*-**Hydroxybenzyl-*p*-toluidine** (EMMERICH), 1888, A., 50.
- p*-**Hydroxybenzyltoluidine** (EMMERICH), 1888, A., 51.
- Hydroxybenzyltrimethylenecarboxylic acid** (MARSHALL and PERKIN), 1891, T., 884.
- $\gamma$ -**Hydroxy- $\beta$ -benzylvaleric acid** (ERDMANN), 1890, A., 377.
- Hydroxydibromobenzylidenephénylhydrazine** (RÖSSING), 1885, A., 389.
- $\alpha$ -**Hydroxybromocarmine** (WILL and LEYMAN), 1886, A., 252.
- Hydroxybromophenylpyrazoline**. See 1-Phenyl-3-pyrazolone, 4-bromo-

- $\beta$ -Hydroxybutaldehyde**, formation of, from acetaldehyde (MICHAEL and KOPF), 1884, A., 420.
- Hydroxybutanedisulphonic acid** (HAUBNER), 1892, A., 424.
- Hydroxybutane- $\beta$ -sulphonic acid**, sodium salt of (HAUBNER), 1892, A., 424.
- $\gamma$ -Hydroxyisobutanesulphonic acid**, barium salt of (GUARESCHI and GARZINO), 1888, A., 436.
- o*-Hydroxy-*p*-isobutylbenzoic acid** (v. DOBRZYCKI), 1888, A., 368.
- Hydroxyisobutylphosphinic acid** (FOSSEK), 1885, A., 504.
- $\beta$ -Hydroxybutylpiperidine ( *$\alpha$ -pipercolylethylalkine*)** (MATZDORFF), 1890, A., 1436.
- Hydroxybutylpyridine ( *$\alpha$ -propylpyridylalkine*)** (ENGLER and MAJMON), 1891, A., 1505.
- $\beta$ -Hydroxybutylpyridine ( *$\alpha$ -picolylethylalkine*)** (MATZDORFF), 1890, A., 1436.
- Hydroxyisobutylpyrotartaric acid**, salts of (FITTIG and SCHNEEGANS), 1890, A., 591.
- Hydroxyisobutylpyrotartaric acids**,  $\alpha$ - and  $\beta$ -, salts of (FITTIG and FEIST), 1890, A., 592, 593.
- Hydroxyisobutyramide**, tetrachloro-, formation of (LEVY, WITTE and CURCHOD), 1890, A., 234.
- Hydroxyisobutyramidine hydrochloride** (PINNER), 1884, A., 1292.
- $\alpha$ -Hydroxybutyric acid**,  $\beta$ -amido- (MELIKOFF), 1884, A., 1301.
- p*-bromo-** (KOLBE), 1883, A., 574; (MELIKOFF), 1885, A., 650.
- $\beta$ -chloro-** (MELIKOFF), 1883, A., 311; (MELIKOFF and PETRENKO-KRITSCHENKO), 1892, A., 296.
- $\beta$ -Hydroxybutyric acid**, levorotatory, in the blood of a diabetic patient (HUGOUNENQ), 1887, A., 986.
- in the cases of *Diabetes mellitus* (MINKOWSKI), 1885, A., 413.
- in diabetic urine (KÜLZ), 1885, A., 285; 1887, A., 290; (DEICHMÜLLER, SZYMANSKI and TOLLENS), 1885, A., 830; (STADELMANN), 1887, A., 464; (WOLPE), 1887, A., 857.
- $\beta$ -Hydroxybutyric acid**,  $\alpha$ -chloro- (MELIKOFF), 1883, A., 969; 1884, A., 1301; 1885, A., 650; 1887, A., 30; (MELIKOFF and PETRENKO-KRITSCHENKO), 1892, A., 296.
- $\gamma$ -trichloro-** (v. GARZAROLI-THURNLACKH), 1892, A., 429.
- $\gamma$ -Hydroxybutyric acid** (FRÜHLING), 1883, A., 42.
- transformation of, into its lactone (HENRY), 1892, A., 1303.
- Hydroxyisobutyric acid**, conversion of acetonechloroform into (WILLGERODT), 1883, A., 177.
- amido-** (MELIKOFF), 1885, A., 650.
- p*-bromo-** (KOLBE), 1883, A., 573; (MELIKOFF), 1885, A., 650.
- chloro-** (MELIKOFF), 1884, A., 1301; 1885, A., 650.
- distillation of, with water (MELIKOFF and PETRENKO-KRITSCHENKO), 1890, A., 736.
- tetrachloro-** (LEVY, WITTE and CURCHOD), 1890, A., 234.
- Hydroxyisobutyrimido-ether hydrochloride** (PINNER), 1884, A., 1292.
- Hydroxybutyro-*o*-toluido-*o*-tolylcarbamine**,  $\alpha$ -chloro- (RÜGHEIMER and SCHRAMM), 1888, A., 503.
- Hydroxycaffeine**, and its salts (FISCHER), 1883, A., 355.
- Hydroxycamphocarboxylic acid** from camphocarboxylic acid (HALLER and MINGUIN), 1890, A., 638.
- Hydroxycampholactonic acid** (WORINGER), 1885, A., 669.
- Hydroxycamphor**. See Campholenic acid.
- Hydroxycamphoronic acids** (KACHLER and SPITZER), 1883, A., 1008; 1889, A., 158.
- Hydroxycarbamidophenol** (KALCKHOFF), 1883, A., 1110.
- Hydroxycarbidimidophenol** (BENDER), 1887, A., 245.
- Hydroxycarbon compounds**, action of non-metallic nitrides and hydronitrides on (VIDAL), 1892, A., 1311.
- 3'-Hydroxycarbostyryl** (FRIEDLÄNDER and WEINBERG), 1883, A., 351.
- 4'-Hydroxycarbostyryl** (v. BAEYER and BLOEM), 1883, A., 197.
- 3'-nitroso- (*guiniazotizime*)** (v. BAEYER and HOMOLKA), 1884, A., 1029.
- $\alpha$ -Hydroxy-*o*-carboxycinnamic lactone** (BAMBERGER and KITSCHOLT), 1892, A., 857.
- Hydroxycarboxylic acids**, aromatic, anhydrides of (SCHIFF), 1883, A., 335.
- Hydroxycarboxymethylquinoxalineureide** (HINSBERG), 1885, A., 909.
- Hydroxycarboxytolylglyoxylic acid**, dibromo- (*dibromohydroxymethylbenzoyldicarboxylic acid*) (WILL and LEY-MANN), 1886, A., 253.
- Hydroxycellulose**, formation of, electrochemically (GOPPELSROEDER), 1885, A., 208.



- Hydroxyhexachloropentenecarboxylic acid** (ZINCKE and KÜSTER), 1888, A., 1277.
- $\alpha$ -Hydroxycinchomeric acid** (*2-hydroxypyridine-3:4-dicarboxylic acid*) (WEIDEL and STRACHE), 1886, A., 951.
- Hydroxycinchonic acid** (*2'-hydroxyquinoline-4'-carboxylic acid*) (KÖNIGS and KÖRNER), 1884, A., 84.
- $\alpha$ -Hydroxycinchonine** and its derivatives (JUNGFLEISCH and LÉGER), 1888, A., 380, 507; 1889, A., 906.
- $\beta$ -Hydroxycinchonine** (JUNGFLEISCH and LÉGER), 1888, A., 380, 507.
- Hydroxycinnamic acid.** See Coumaric acid.
- Hydroxycinnoline** and its derivatives (V. RICHTER), 1883, A., 1105; (BUSCH and KLETT), 1892, A., 1494.
- Hydroxycitraconic acid** and its derivatives (SCHERKS), 1885, A., 513; (MELIKOFF and FELDMANN), 1890, A., 29.
- Hydroxycitric acid** (V. LIPPMANN), 1883, A., 913.  
sodioferrous salt of (ROTHER), 1883, A., 458.
- Hydroxycitronic acid** (V. LIPPMANN), 1884, A., 939.
- Hydroxycocaylacetic acid** (EINHORN), 1889, A., 169.
- Hydroxycomazine**, and its derivatives (KRIPPENDORFF), 1885, A., 1243.
- Hydroxycoumenamic acid.** See 3:4:5-Trihydroxypicolinic acid.
- Hydroxy-compounds**, action of aluminium chloride on (CLAUS and MERCKLIN), 1886, A., 143.  
action of sulphur on the salts of aromatic (LANGE), 1888, A., 375.
- Hydroxyconiine**, tribromo- (V. HOFMANN), 1885, A., 563.
- Hydroxy-m-coumaric acid** and its derivatives (LUDWIG), 1885, A., 664.
- m*-Hydroxycoumarilic acid** (HANTZSCH), 1887, A., 262.
- m*-Hydroxycoumarin** (V. PECHMANN and WELSH), 1884, A., 1346; (BIZZARRI), 1885, A., 901.
- Hydroxycroconic acid.** See Leuconic acid.
- Hydroxycumidine**, and the action of acetic anhydride on (LIEBERMANN and V. KOSTANECKI), 1884, A., 1147.
- Hydroxycumylacrylic acids**, *o*- and *m*- (WIDMAN), 1886, A., 466, 467.
- Hydroxycyanamylamine** (TRÜGER), 1888, A., 802.
- Hydroxycyanoconiine** (V. MEYER), 1883, A., 352.  
behaviour of, with bromine and potassium hydroxide (V. MEYER), 1883, A., 354.  
derivatives of (V. MEYER), 1883, A., 352; (RIESS), 1885, A., 235.
- Hydroxycyanuric disulphide** (KLASON), 1886, A., 325.
- Hydroxycymene**, bromo- (MAZZARA), 1886, A., 1017.
- $\gamma$ -Hydroxydecylic acid** (SCHNEEGANS), 1885, A., 650.
- Hydroxydehydracetic acid** and its acetyl-compound (PERKIN and BERNHART), 1884, A., 1121; (PERKIN), 1887, T., 491, 492.
- Hydroxydeoxybenzoin** (NEY), 1888, A., 1197.
- Hydroxy-*m*-diazines** (V. MEYER), 1890, A., 68.
- Hydroxydiethylallylamine**, chloro- (REBOUL), 1884, A., 578.
- 6-Hydroxy-2:4-diethyl-*m*-diazine-5-carboxylic acid** (V. MEYER), 1889, A., 686.
- Hydroxydifurfuryleyanidine** (PINNÉ), 1892, A., 1008.
- Hydroxydihydropyridinecarboxylic acid**, aldehyde of (OST), 1883, A., 793.
- 2'-Hydroxydihydroquinoline.** See Hydrocarbostyrl.
- Hydroxydihydroquinolone** (ERLENMEYER and LIPP), 1883, A., 993.
- Hydroxydihydroquinoxaline** (PLÖCHL), 1886, A., 351.
- Hydroxydiketodihydropentene**, tribromo- (NEF), 1890, A., 1272.
- Hydroxydiketohexene**, pentabromo- (ZINCKE and KEGEL), 1890, A., 1109.
- Hydroxydiketohydrindocarboxylic acid**, dichloro- (ZINCKE), 1888, A., 489.
- Hydroxydiketopentamethylenecarboxylic acid**, *mono*- and *di*-chloro- (HANTZSCH), 1890, A., 131, 132.  
*trichloro*- (HANTZSCH), 1888, A., 1190; (LANDOLT), 1892, A., 835.  
*tetrachloro*- (LANDOLT), 1892, A., 836.
- 4'-Hydroxydimethylamido- $\alpha$ -naphthoquinone** (MYLIUS), 1885, A., 803.
- Hydroxydimethylamidoquinone** (KEHRMANN), 1890, A., 757.
- Hydroxy-2:3-dimethylbenzoic acid** (JACOBSEN), 1887, A., 36.
- 2-Hydroxy-3:5-dimethylbenzoic acid** (*hydroxyxylic acid*) (GUNTER), 1884, A., 1347.

- 2-Hydroxy-4:6-dimethylbenzoic acid (JACOBSSEN), 1886, A., 709.
- Hydroxydimethylbutyrolactonecarboxylic acid (ZELINSKY), 1892, A., 436.
- 6-Hydroxy-2:4-dimethyl-*m*-diazine (PINNER), 1886, A., 46; 1889, A., 1006.
- 4-Hydroxy-2:6-dimethyl-*m*-diazine, 5-bromo-, hydrobromide of (PINNER), 1887, A., 1054.
- $\beta$ -Hydroxydimethylethylamine (KNORR), 1889, A., 905.
- 6-Hydroxy-2:5-dimethyl-4-ethyl-*m*-diazine (v. MEYER), 1890, A., 69.
- 6-Hydroxy-4:5-dimethyl-2-ethyl-*m*-diazine (PINNER), 1889, A., 1007.
- $\beta$ -Hydroxy- $\alpha$ -dimethylisohexoic acid (WOHLBRÜCK), 1887, A., 1099.
- Hydroxydimethiodoheptamethylene (KIPPING and PERKIN), 1891, T., 224.
- $\beta$ -Hydroxydimethylnaphthaquinoline-sulphonic acid (REED), 1887, A., 681.
- Hydroxydimethylpurin (FISCHER), 1884, A., 997.
- 1-Hydroxy-2:5-dimethylpyrroline-3-carboxylic acid (KNORR), 1887, A., 275.
- 4'-Hydroxy-2:2'-dimethylquinazoline (NIEMENTOWSKI), 1888, A., 837.
- Hydroxy-2':3'-dimethylquinoline [m.p. 44°] (BEYER), 1886, A., 630.
- 1-Hydroxy-2':4'-dimethylquinoline (ENGLER and BAUER), 1889, A., 524.
- 3-Hydroxy-2':4'-dimethylquinoline (ENGLER and BAUER), 1889, A., 525.
- 4'-Hydroxy-1':2'-dimethylquinoline. See 4'-Oxy-1':2'-dimethylquinoline.
- 4-Hydroxy-1:3-dimethylquinoline (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- 4'-Hydroxy-2':3'-dimethylquinoline (CONRAD and LIMPACH), 1892, A., 78.
- Hydroxydimethylquinoxaline (HINSBERG), 1884, A., 1053; 1889, A., 280; 1892, A., 1359.
- di*bromo- (NASTVOGEL), 1889, A., 238.
- Hydroxydimethylsulphonebenzide (*di-hydroxyditolylsulphone*) (TASSINARI), 1889, A., 246.
- p*-Hydroxydiphenyl and its derivatives (KAISER), 1890, A., 898.
- synthesis of, from aniline (HIRSCH), 1891, A., 437.
- Hydroxydiphenyl, *di*amido- (WEINBERG), 1888, A., 285; (GRIESS and DUISBERG), 1890, A., 59.
- Hydroxydiphenyl bases (WEINBERG), 1888, A., 285.
- Hydroxydiphenyl triketone (SÜDERBAUM), 1891, A., 1043.
- Hydroxydiphenylamine, *dinitro*- [m.p. 190°] (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- thio- (BERNTSEN), 1885, A., 260; 1886, A., 55.
- o*-Hydroxydiphenylamine, *dinitro*- (SCHÖPFF), 1889, A., 772.
- m*-Hydroxydiphenylamine and its derivatives (CALM), 1884, A., 591.
- p*-amido and *p*-nitroso- (KÖHLER), 1888, A., 587.
- p*-Hydroxydiphenylamine and its derivatives (CALM), 1884, A., 592; (PHILIP and CALM), 1885, A., 155.
- Hydroxydiphenylbenzyl-maleide and -maleimidine, nitro- (COHN), 1892, A., 485, 486.
- $\gamma$ -Hydroxy- $\gamma$ -diphenylbutyric acid (AUGER), 1888, A., 952.
- o*-Hydroxydiphenylcarbamide (LEUCKART), 1890, A., 761.
- Hydroxydiphenylecyanidine (PINNER), 1890, A., 497.
- 6-Hydroxy-2:4-diphenyl-*m*-diazine, formation of (PINNER), 1889, A., 1008; (SCHWARZE), 1890, A., 1159.
- 6-Hydroxy-2:4-diphenyl-*m*-diazine-5-carboxylic acid (v. MEYER), 1890, A., 68.
- 4'-Hydroxydiphenyl-2:2'-disulphonic acid, 4-amido- (LIMPRICHT), 1891, A., 929.
- Hydroxydiphenylene ketone, and its derivatives (RICHTER), 1884, A., 325.
- Hydroxydiphenylethane (KÖNIGS), 1891, A., 208; (KÖNIGS and CARL), 1892, A., 466.
- Hydroxydiphenylethylamine and its derivatives (GOLDSCHMIDT and POLONOWSKA), 1887, A., 492; (ZANETTI), 1891, A., 726.
- Hydroxydiphenylmethane-di- and -tricarboxylic acids (JUILLARD), 1888, A., 707.
- 6-Hydroxy-2:4-diphenyl-5-methyl-*m*-diazine (v. MEYER), 1889, A., 578; 1890, A., 68.
- formation of (SCHWARZE), 1890, A., 1159.
- m*-Hydroxydiphenylnitrosamine (KÖHLER), 1888, A., 587.
- Hydroxydiphenylpropionic acid (LIEBERMANN and HARTMANN), 1891, A., 1484.
- Hydroxydiphenylpropylenediamine (FAUCONNIER), 1888, A., 1281.
- p*-Hydroxydiphenylquinoxaline (AUTENRIETH and HINSBERG), 1892, A., 733.

- 3-Hydroxydiphenyl-6-sulphonic acid, 4:4'-diamido- (WEINBERG), 1888, A., 285.
- Hydroxydiphtalyl (GRAEBE and GUYE), 1886, A., 882.
- Hydroxydipropylamine platinochloride (LIEBERMANN and PAAL), 1883, A., 910.
- Hydroxydiquinolyl (WEIDEL and GLÄSER), 1886, A., 949; (WEIDEL), 1887, A., 848.
- 1-Hydroxy-4:2'-disulpho- $\beta$ -naphthoic acid (KÖNIG), 1889, A., 719.
- Hydroxyditolyleyanidine (PINNER), 1892, A., 1008.
- 2'-Hydroxy-5:5'-ditolyl-4:4'-disulphonic acid, 2-amido- (HELLE), 1892, A., 1468.
- Hydroxydixanthenes (v. KOSTANECKI and NESSLER), 1892, A., 504; (v. KOSTANECKI and SEIDMANN), 1892, A., 1097.
- Hydroxydurylic acid (JACOBSEN and SCHNAPPAUFF), 1886, A., 68.
- Hydroxy- $\beta$ -isodurylic acid (KROHN), 1888, A., 594.
- Hydroxyethanedisulphonic acid, salts of (MONARI), 1885, A., 970.
- Hydroxyethanesulphonic acid. See Isethionic acid.
- Hydroxyethenylamylacetic acid (POETSCH), 1883, A., 730.
- Hydroxyethoxyanthraquinone (LIEBERMANN and JELLINEK), 1888, A., 716.
- Hydroxyethoxydiphenylamine, dinitro- (NIETZKI and KAUFMANN), 1892, A., 314.
- Hydroxyethoxymethylquinoxaline (AUTENRIETH and HINSBERG), 1892, A., 733.
- 6-Hydroxy-2-*p*-ethoxyphenyl-5-benzyl-4-methyl-*m*-diazine (PINNER), 1891, A., 64.
- 6-Hydroxy-2-*p*-ethoxyphenyl-*m*-diazine-4-carboxylic acid (PINNER), 1891, A., 64.
- 6-Hydroxy-2-*o*- and -*p*-ethoxyphenyl-4-methyl-*m*-diazines (PINNER), 1891, A., 64.
- 6-Hydroxy-2-*p*-ethoxyphenyl-4-phenyl-*m*-diazine (PINNER), 1891, A., 64.
- Hydroxyethoxyppyridine [m.p. 128°] (WEIDEL and BLAU), 1886, A., 76.
- 2-Hydroxyethoxyppyridine, dichloro-4-amido- (STOKES and v. PECHMANN), 1887, A., 157.
- 1-Hydroxy-1-ethoxyquinoline, 2:4-dichloro- (HEBEERAND), 1889, A., 61.
- 4'-Hydroxy-2'-ethoxyquinoline (BISCHOFF), 1889, A., 519.
- Hydroxyethylacetamide pierate (GABRIEL), 1889, A., 1134.
- Hydroxyethyl-*o*-amidophenol (KNORR), 1889, A., 1219.
- Hydroxyethylamine (*amidoethylalcohol*) nitrate (GABRIEL), 1888, A., 1268.
- salts (GABRIEL), 1888, A., 440.
- Hydroxyethylaniline, preparation of (KNORR), 1889, A., 1219; (OTTO), 1891, A., 1373.
- Hydroxyethyl-*o*-anisidine (KNORR), 1889, A., 1219.
- Hydroxyethylbenzamide (GABRIEL), 1889, A., 1134.
- Hydroxyethylbenzoic acid (*phlorol-carboxylic acid*) (OLIVERI), 1884, A., 174.
- o*-chloronitro-, lactone of (ZINCKE and LATTEN), 1892, A., 1230.
- $\gamma$ -Hydroxy- $\alpha$ -ethylbutyric acid and its salts (CHANLAROFF), 1885, A., 375.
- Hydroxyethyl-*m*-diazine-2-carboxylic acid (PINNER), 1892, A., 1008.
- 1-Hydroxy-1'-ethylenehydroquinoline (KOHN), 1886, T., 508.
- Hydroxyethylethylaniline (*phenyldiethylalkine*) (LAUN), 1884, A., 1011.
- 5-Hydroxyethyl-2-ethylpiperidine (2:5-methylethylpiperidylalkine) (PRAUSNITZ), 1892, A., 1358.
- 2-Hydroxyethyl-5-ethylpyridine (*methylethylpyridylalkine*) (PRAUSNITZ), 1890, A., 1436.
- $\delta$ -Hydroxyethylhexoic acid, salts of (FITTIG and CHRIST), 1892, A., 962.
- Hydroxyethylhydroxyquinoline and salts of (WURTZ), 1883, A., 923.
- Hydroxyethyl sodium thiosulphate (PURGOTTI), 1892, A., 1418.
- Hydroxyethylidene-2'-methyl- $\beta$ -naphthaquinoline, trichloro- (SEITZ), 1889, A., 527.
- Hydroxyethylmethylamine (KNORR), 1889, A., 1218.
- Hydroxyethylmethylaniline (*phenylmethylethylalkine*) and its derivatives (LAUN), 1884, A., 1011.
- Hydroxyethylmethyl-*o*-anisidine (KNORR), 1889, A., 1220.
- 2-Hydroxyethyl-1-methylpiperidine (*methyl- $\alpha$ -pipecolylalkine*) and its derivatives (LADENBURG), 1890, A., 68; 1891, A., 1093; (LIPP), 1892, A., 1245.
- 2-Hydroxyethyl-1-methyltetrahydropyridine (LIPP), 1892, A., 1244.
- Hydroxyethylnaphthylamines (OTTO), 1891, A., 1374.
- Hydroxyethylphosphinic acid (FOSSEK), 1886, A., 530.



- Hydroxyethyl-phthalamic acid** and -phthalimide (GABRIEL), 1888, A., 440.
- 2-Hydroxyethylpiperidine** (LADENBURG), 1890, A., 67; 1891, A., 1093.
- $\omega$ -Hydroxyethylpiperonylcarboxylic acid** (PERKIN), 1890, T., 996, 1020. oxidation of (PERKIN), 1890, T., 1022. salts of (PERKIN), 1890, T., 1023. bromo- (PERKIN), 1890, T., 1025.
- $\omega$ -Hydroxyethylpiperonylcarboxylic anhydride** (PERKIN), 1890, T., 1021. bromo- and nitro- (PERKIN), 1890, T., 1025, 1027.
- Hydroxyethylpropylamine** and its platinochloride (LIEBERMANN and PAAL), 1883, A., 910.
- Hydroxyethylpropylaniline** (LAUN), 1884, A., 1011.
- 2-Hydroxyethylpyridine** ( $\alpha$ -picolyl-alkine) and derivatives of (LADENBURG), 1890, A., 67; 1891, A., 1092.
- $\omega$ -Hydroxyethylpyrocatecholcarboxylic anhydride** (PERKIN), 1890, T., 1027.
- 4-Hydroxy-3'-ethylquinoline, 2'-chloro-** (RÜGHEIMER and SCHRAMM), 1887, A., 738.
- 1-Hydroxy-1'-ethyltetrahydroquinoline** (FISCHER), 1883, A., 1146; (FISCHER and RENOUF), 1884, A., 1049. ethiodide (KOHN), 1886, T., 505.
- 4-Hydroxy-1'-ethyltetrahydroquinoline** (RIEMERSCHMIED), 1883, A., 1148.
- Hydroxyethyltheobromine** (FISCHER), 1883, A., 357.
- Hydroxyethyltrihydroquinolinecarboxylic acid** (LIPPMANN and FLEISSNER), 1887, A., 1120.
- Hydroxyethyltrimethylammonium platinochloride** (BODE), 1892, A., 807.
- Hydroxyethyltrimethylenecarboxylic acid** (MARSHALL and PERKIN), 1891, T., 870.
- $\gamma$ -Hydroxyethylvaleric acid** (YOUNG), 1883, T., 177.
- Hydroxyethylxanthine** (LEHMANN), 1890, A., 32.
- Hydroxy- $\psi$ -flavenol** (WEIDEL and BAMBERGER), 1888, A., 966.
- Hydroxyfluorene-carboxylic acid** (GRAEBE and AUBIN), 1889, A., 146.
- Hydroxyfurfuryl-**. See Furfuryl-.
- Hydroxygluconic acid** (BOUTROUX), 1890, A., 1399.
- $\alpha$ -Hydroxyglutaric acid** (WOLFF), 1891, A., 421.
- $\beta$ -Hydroxyglutaric acid** (v. PECHMANN and JENISCH), 1892, A., 147.
- $\alpha$ -Hydroxy- $\beta$ -halogen lactic acids**, distillation of, with water (MELIKOFF and PETRENKO-KRITSCHENKO), 1890, A., 736.
- Hydroxyheptoic acid** (FITTIG and SCHMIDT), 1890, A., 589. salts of (YOUNG), 1883, A., 455.
- Hydroxyisheptoic acid** (FITTIG and ZANNER), 1890, A., 590.
- Hydroxyheptylphosphinic acid** (FOSSEK), 1886, A., 529.
- $\beta$ -Hydroxyheptylsuccinic acid** (*hexitamalic acid*) and its salts (SCHNEEGANS), 1885, A., 650.
- Hydroxyhexanedisulphonic acid**, barium salt of (LUDWIG), 1889, A., 121.
- Hydroxyhexic acid**. See Propylsuccinic acid.
- Hydroxyisohexic acid**. See *iso*Propyl-tartaric acid.
- $\gamma$ -Hydroxyhexoamide** (FITTIG and DUBOIS), 1890, A., 880.
- Hydroxyhexoic acid** (HANTZSCH and WOHLBRÜCK), 1887, A., 717.
- $\gamma$ -Hydroxyhexoic acid**, ammonium salt of (FITTIG and DUBOIS), 1890, A., 880. lactone of, conversion of gluconic acid into (KILIANI and KLEEMANN), 1884, A., 730, 993. action of sodium ethylate on (FITTIG), 1885, A., 375; (FITTIG and DUBOIS), 1890, A., 868.
- $\gamma$ -Hydroxyisohexoic acid**, lactone of, action of sodium ethylate on (ERDMANN), 1885, A., 963. action of water and of hydriodic acid on (FITTIG and RÜHLMANN), 1885, A., 375.
- $\delta$ -Hydroxyhexoic acid**,  $\alpha$ - and  $\beta$ -lactones of (GOTTSTEIN), 1883, A., 454.
- Hydroxyhydrastinine** and its derivatives (FREUND and WILL), 1887, A., 1057.
- $\alpha$ -Hydroxyhydrindenecarboxylamide**, tetrachloro- (ZINCKE and ARNST), 1892, A., 858.
- Hydroxyhydrocarbostyryl (2':4'-dihydroxy-3':4'-dihydroquinoline)** (EINHORN), 1884, A., 1338. 3-chloro- (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1100.
- Hydroxyhydro-*p*-coumaric acid** (BLENDERMANN), 1883, A., 818.
- Hydroxyhydrocyanomesitenelactone** (OBRÉGIA), 1892, A., 325.
- Hydroxyhydroisodehydracetic acid**, nitrile of (OBRÉGIA), 1892, A., 325.
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- Hydroxylamine**, poisonous action of (LOEW), 1885, A., 830.  
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- Hydroxylamine salts**, action of, on plants (MEYER and SCHULZE), 1884, A., 1210.  
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- Hydroxylaminedisulphonic acid**, preparation of the alkali salts of (RASCIG), 1888, A., 913.
- Hydroxylaminesulphonates** and their conversion into hyponitrites (DIVERS and HAGA), 1889, T., 760; P., 146.
- Hydroxy- $\beta$ -lapachone** (HOOKER), 1891, A., 1240; 1892, T., 649.
- Hydroxylation** by direct oxidation (MEYER), 1883, A., 983, 1072.
- Hydroxylepidine**. See Hydroxy-4'-methylquinoline.
- Hydroxylevulinic acids**,  $\alpha$ - and  $\beta$ - (WOLFF), 1891, A., 1187, 1185.
- Hydro-xyloquinone**. See Xyloquinol.
- Hydroxylutidinecarboxylic acid**, ethylic salt of (COLLIE), 1885, A., 374.
- Hydroxymaleic acid** (SCHERKS), 1884, A., 993; 1885, A., 513.
- Hydroxymalonic acid**. See Tarttronic acid.
- o*-Hydroxymandelic acid** (v. BAEYER and FRITSCH), 1884, A., 1022.
- Hydroxymellitic acid** (*hydrotrimellitic acid*) and its salts (JACOBSEN and MEYER), 1883, A., 590.
- Hydroxymesitenedicarboxylic acid** (HANTZSCH), 1883, A., 1083.
- Hydroxymethanesulphonic acid**, sodium salt of (KRAUT, ESCHWEILER and GROSSMANN), 1890, A., 1092.
- Hydroxymethylanilidophenol** (SANDMEYER), 1887, A., 135; (BENDER), 1887, A., 245.
- Hydroxymethenyltolylenediamine** (SANDMEYER), 1887, A., 135.
- o*-Hydroxy-*p*-methoxyacetophenone** (NAGAI), 1892, A., 59.
- 2-Hydroxy-4-methoxyallylbenzene** (v. PECHMANN and COHEN), 1884, A., 1331.
- p*-Hydroxy-*o*-methoxybenzaldehyde-phenylhydrazone** (MARCUS), 1892, A., 317.
- 1-Hydroxy-3-methoxybenzene, 4-amido-** (BECHHOLD), 1889, A., 1155.
- p*-Hydroxy-*m*-methoxybenzoylformic acid** (*hydroxymethoxyphenylglyoxylic acid*; *vanilloyl acid*) (TIEMANN), 1892, A., 64.
- m*-Hydroxy-*o*-methoxycinnamic acid** (SCHNELL), 1884, A., 1165; 1887, A., 140.
- 4'-Hydroxy-1- and -3-methoxy-2'-methylquinolines** (CONRAD and LIMPACH), 1888, A., 854, 853.
- Hydroxymethoxyquinoline** (LA COSTE and VALEUR), 1887, A., 973.
- 2'-Hydroxy-3-methoxyquinoline** (*methoxycarbostyryl*) (EICHENGRÜN and EINHORN), 1891, A., 1101.
- Hydroxymethoxytoluene** (*hydroxytolyl methyl ether*) (LIMPACH), 1889, A., 499.
- Hydroxymethylbenzene pentaketone** (KEHRMANN), 1888, A., 940.
- Hydroxy- $\beta$ -methyl- $\gamma$ -acetoxime- $\delta$ -is-nitrosoamidovaleric acid**, lactam of (OBRÉGIA), 1892, A., 326.
- Hydroxymethylacridine** (BESTHORN and CURTMAN), 1891, A., 1233.
- Hydroxymethylantraquinone**, and its acetyl-derivative (ROEMER and LINK), 1883, A., 1139.
- Hydroxymethylantraquinones**, spectra of (LIEBERMANN and v. KOSTANECKI), 1887, A., 1.



- m*-Hydroxymethylbenzaldehyde (TIEMANN and LUDWIG), 1883, A., 189.  
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 6:4-Hydroxymethyleinnamic acid, anhydride of (V. PECHMANN and WELSH), 1884, A., 1346.  
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 4-Hydroxy-6-methyl-*m*-diazine-2-carboxylic acid (PINNER), 1892, A., 1008.  
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 6-Hydroxy-4-methyl-2-ethyl-*m*-diazine (PINNER), 1886, A., 46; 1889, A., 1007.  
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 4-Hydroxy-2'-methylphenofurfuran-1'-carboxylic acid, 1:2:3-*tri*-chloro- (IKUTA), 1892, A., 609.  
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- Hydroxymethylpyrotartaric acid** (*methylmalic acid*), salts of (FITTIG and FRÄNKEL), 1890, A., 585.
- 4'-Hydroxy-2-methylquinazoline** (NIEMENTOWSKI), 1889, A., 1065.
- 4'-Hydroxy-2'-methylquinazoline**, nitro- and chloro- (DEHOFF), 1890, A., 802.
- Hydroxymethylquinazoline**. See also *Oxymethylquinazoline*.
- 1-Hydroxy-2-methylquinoline** (*hydroxytoluquinoline*) (NÖLTING and TRAUTMANN), 1891, A., 326; 1892, A., 727.
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- 1-Hydroxy-2'-methylquinoline** (*oxyhydroxyquinoline*) and its derivatives (DOEBNER and V. MILLER), 1884, A., 1374.
- 1-Hydroxy-4-methylquinoline** (NÖLTING and TRAUTMANN), 1891, A., 326; 1892, A., 727.
- 2-amido- (GANELIN and V. KOSTANECKI), 1892, A., 506.
- 1-Hydroxy-4'-methylquinoline** (*hydroxyepidine*) (BUSCH and KOENIGS), 1890, A., 1435.
- 3-Hydroxy-1-methylquinoline** (HERZFELD), 1884, A., 1199.
- 3-Hydroxy-2'-methylquinoline** (*p-hydroxyquinoline*) (DOEBNER and V. MILLER), 1884, A., 1374.
- 3-Hydroxy-4'-methylquinoline** (KOENIGS), 1890, A., 1434; (BUSCH and KOENIGS), 1890, A., 1435.
- 3-Hydroxy-4-methylquinoline**, 1-nitro- (NÖLTING and TRAUTMANN), 1891, A., 326.
- 4-Hydroxy-1-methylquinoline** (HERZFELD), 1884, A., 1199.
- 4-Hydroxy-3-methylquinoline** and nitroso- (NÖLTING and TRAUTMANN), 1891, A., 326.
- 4'-Hydroxy-1-methylquinoline**, 2':3'-dichloro- (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- 4'-Hydroxy-2'-methylquinoline** (*oxyhydroxyquinoline*) (CONRAD and LIMPACH), 1887, A., 679; 1888, A., 1109; (KNORR), 1887, A., 847.
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- derivatives (CONRAD and LIMPACH), 1887, A., 679; 1888, A., 1109.
- methiodide (CONRAD and ECKHARDT), 1889, A., 519.
- 2'-Hydroxy-4'-methylisoquinoline**, chloro- (GABRIEL), 1887, A., 1112.
- Hydroxymethylquinolines**, 4:1:2-, 2:1:4- and 3:4:1-nitro- (NÖLTING and TRAUTMANN), 1892, A., 727, 728, 729.
- 4'-Hydroxy-2'-methylquinoline-3'-carboxylic acid and aldehyde** (CONRAD and LIMPACH), 1888, A., 1109.
- Hydroxy-2'-methylquinolineazobenzenesulphonic acid**, sodium salt of (CONRAD and LIMPACH), 1888, A., 1109.
- 1-Hydroxy-2'-methylquinolinecarboxylic acid** (KÖNIG), 1888, A., 610.
- 2'-Hydroxy-4'-methylquinoline-1-carboxylic acid** (REISSERT), 1891, A., 737.
- 4'-Hydroxy-2'-methylquinoline-3'-carboxylic acid** (CONRAD and LIMPACH), 1888, A., 1110.
- 2'-Hydroxymethylquinolinesulphonic acid** (FEER and KOENIGS), 1885, A., 1235.
- 4'-Hydroxy-2'-methylquinolinesulphonic acid** (CONRAD and LIMPACH), 1888, A., 1110.
- Hydroxymethylquinoxaline** (*hydroxytoluquinoxaline*) (HINSBERG), 1885, A., 910; 1886, A., 561.
- Hydroxymethylquinoxalinecarboxylic acid** (HINSBERG), 1885, A., 909; (ZEHRA), 1891, A., 304.
- Hydroxymethylsuccinic acid**, trichloro-, and its salts (FITTIG and MILLER), 1890, A., 586.
- Hydroxymethylsulphonebetaine** (CLAUS and POSSELT), 1890, A., 522.
- 5-Hydroxy-2-methylterephthalic acid** (JACOBSEN and MEYER), 1883, A., 590.
- 1-Hydroxy-1'-methyltetrahydroquinoline** (*kairin*) (FISCHER), 1883, A., 1146; (FISCHER and RENOUF), 1884, A., 1049.
- physiological properties of (FILEHNE), 1884, A., 474.
- benzyl chloride and methiodide of (KOHN), 1886, T., 501, 506.
- 1-Hydroxy-2'-methyltetrahydroquinoline and its derivatives** (DOEBNER and V. MILLER), 1884, A., 1374.
- 2-Hydroxy-4'-methyltetrahydroquinoline and its nitro-derivatives** (FISCHER and WITTMACK), 1884, A., 1052.
- 1-Hydroxymethyltetrahydroquinolinecarboxylic acid** (SCHMITT and ENGELMANN), 1887, A., 738; (KRÓLIKOWSKI and NENCKI), 1888, A., 865.
- Hydroxymethylthiazole** (TCHERNIAC and HELLON), 1883, A., 654; (TCHERNIAC), 1892, A., 1425.

**Hydroxymethylthiazolecarboxylic acid** (ZÜRCHER), 1889, A., 725; (WOHMANN) 1891, A., 226.

**Hydroxymethylthiophen** (*hydroxythiotolol*) (KUES and PAAL), 1886, A., 536.

**1-Hydroxymethyltrihydroquinolinecarboxylic acid**, behaviour of, in the organism (KRÓLIKOWSKI and NENCKI), 1888, A., 865.

**$\beta$ -Hydroxy- $\alpha$ -methylvaleric acid** (HANTZSCH and WOHLBRÜCK), 1887, A., 717.

**$\gamma$ -Hydroxy- $\alpha$ -methylvaleric acid** (GOTTSTEIN), 1883, A., 455.

**Hydroxymethylxanthine** (BEHREND), 1886, A., 338; (LEHMANN), 1890, A., 32.

**$\beta$ -Hydroxymethylxanthone** (v. KOSTANECKI and NESSLER), 1891, A., 1060.

**Hydroxymyristic acid** (HELL and TWERDOMEDOFF), 1889, A., 956.

**$\beta$ -Hydroxy- $\alpha$ - and  $\alpha$ -hydroxy- $\beta$ -naphthahydroxamic acids** (JEANRENAUD), 1889, A., 871.

**Hydroxynaphthalide** (GRAEBE and GFELLER), 1892, A., 864.

**$\beta$ -Hydroxynaphthaquinoline** (GENTIL), 1885, A., 561.

**Hydroxynaphthaquinone**, dibromo- (ARMSTRONG and STREATFIELD), 1886, P., 232.

**2'-Hydroxy-1:2-naphthaquinone** (CLAUSIUS), 1890, A., 628.

**2-Hydroxy-1:4-naphthaquinone** (*naphthalic acid*), preparation of (KOWALSKI), 1892, A., 1098.  
phenylhydrazine derivatives of (ZINCKE and THELEN), 1884, A., 1359; 1888, A., 1097.

3-bromo- (MILLER), 1885, A., 667.

3-chloro- (CLAUS and MUELLER), 1886, A., 247.

3-bromo- and 3-chloro-, action of hypochlorous and hypobromous acids on (ZINCKE and GERLAND), 1888, A., 1198.

trichloro- (CLAUS), 1886, A., 714.

tetrachloro- (CLAUS and WENZLICK), 1886, A., 713; (CLAUS), 1886, A., 714.

3-nitro-, derivatives of (KEHRMANN and WEICHARDT), 1889, A., 1197.

**4'-Hydroxy-1:4-naphthaquinone** (*juglone; nucin; regianin*) (BERNTSEN), 1884, A., 1365; (BERNTSEN and SEMPER), 1885, A., 546; 1886, A., 363; 1887, A., 674; (MYLIUS), 1885, A., 803.

**4'-Hydroxy-1:4-naphthaquinone** (*juglone; nucin; regianin*), identity of, with regianin and nucin (PHIPSON), 1885, A., 1142.

synthesis of (BERNTSEN and SEMPER), 1887, A., 674.

constitution of (BERNTSEN and SEMPER), 1885, A., 548.

derivatives (BERNTSEN and SEMPER), 1885, A., 546; (MYLIUS), 1885, A., 803.

**2-Hydroxy-1:4-naphthaquinoneanilide** and 3-chloro- (ZINCKE and KEGEL), 1889, A., 267, 268.

**Hydroxynaphthaquinonecarboxylic acid**, chloro- (EKSTRAND), 1889, A., 153.

**4'-Hydroxy-1:4-naphthaquinoneoxime** (*jugloneoxime*) (BERNTSEN and SEMPER), 1886, A., 364.

**2-Hydroxy-1:4-naphthaquinoneimide** (KRONFELD), 1884, A., 1037; (MEERSON), 1888, A., 1200.

3-bromo- (ZINCKE and GERLAND), 1887, A., 838.

**3-Hydroxy-1:4-naphthaquinone-4-imide**, 2-chloro- (ZINCKE and SCHMUNK), 1890, A., 1147.

**3-Hydroxy-1:4-naphthaquinoneoxime** (v. KOSTANECKI), 1889, A., 887.

2-chloro- (ZINCKE and SCHMUNK), 1890, A., 1147.

**4'-Hydroxy-1:4-naphthaquinoneoxime** (*jugloneoxime*) (BERNTSEN and SEMPER), 1885, A., 547.

**2'-Hydroxy-2:1-naphthaquinoneoxime** (CLAUSIUS), 1890, A., 628.

**2-Hydroxy-1:4-naphthaquinonesulphonic acid**, 3-chloro- (CLAUS and VAN DER CLOET), 1888, A., 603.

**Hydroxynaphthaquinoxalinecarboxylic acid** (KÜHLING), 1891, A., 1342.

**Hydroxynaphthatoic acid** (WALDEE), 1883, A., 666.

**Hydroxynaphthotrichloride diethylic orthophosphate** (WOLFFENSTEIN), 1889, A., 615.

**1'-Hydroxy- $\alpha$ -naphthoic acid** (*naphtholcarboxylic acid*) (EKSTRAND), 1886, A., 715.

chloro-, and nitro- (EKSTRAND), 1889, A., 153.

**2-Hydroxy- $\alpha$ -naphthoic acid** [m.p. 157°] and derivatives (NIETZKI and GUITEMANN), 1887, A., 732; (SCHMITT and BURKARD), 1888, A., 60.

action of phosphorus pentachloride on (RABE), 1889, A., 514.



- 1-Hydroxy- $\beta$ -naphthoic acid (NIETZKI and GUTERMANN), 1887, A., 732; (SCHMITT and BURKARD), 1888, A., 59.  
 constitution of (WOLFFENSTEIN), 1889, A., 615.  
 action of phosphorus pentachloride on (WOLFFENSTEIN), 1887, A., 963; 1888, A., 714.  
 4-amido-(NIETZKI and GUTERMANN), 1887, A., 732; (SCHMITT and BURKARD), 1888, A., 59.
- 3-Hydroxy- $\beta$ -naphthoic acid [m.p. 216°] (SCHMITT and BURKARD), 1888, A., 60.  
 action of aniline on (SCHÖPF), 1892, A., 1476.
- 3-Hydroxy- $\beta$ -naphthoic anilide (SCHÖPF), 1892, A., 1476.
- 3'-Hydroxy- $\beta$ -naphthoxanthone (v. KOSTANECKI), 1892, A., 1099.
- Hydroxynaphthoxanthenes (BENER), 1892, A., 1100.
- $\alpha$ -Hydroxynaphthyl methyl ketone (WITT), 1888, A., 486.
- $\beta$ -Hydroxynaphthylacrylic acid and anhydride (KAUFFMANN), 1883, A., 1136.
- $\alpha\beta$ -Hydroxynaphthylbenzoic acid, and its derivatives (WALDER), 1883, A., 666.
- 6-Hydroxy-2- $\beta$ -naphthyl-*m*-diazine-4-carboxylic acid (PINNER), 1892, A., 1008.
- 6-Hydroxy-2- $\beta$ -naphthyl-4:5-dimethyl-*m*-diazine (PINNER), 1892, A., 1009.
- Hydroxynaphthyl sulphide [m.p. 214°—215°] (TASSINARI), 1887, A., 808.
- $\beta$ -Hydroxynaphthyl mono- and di-sulphides (ONUFROWICZ), 1891, A., 320, 321.
- 6-Hydroxy-2- $\beta$ -naphthyl-4-methyl-*m*-diazine (PINNER), 1892, A., 1009.
- Hydroxynaphthylphenyl, diamido-, derivatives of (MELDOLA and MORGAN), 1889, T., 124, 125.
- Hydroxy- $\alpha$ -naphthylthiocarbamide (TIEMANN), 1889, A., 1165; (VOLTMER), 1890, A., 1127; 1891, A., 558.
- 2-Hydroxynicotinic acid (2-hydroxypyridine-3-carboxylic acid) (WEIDEL and STRACHE), 1886, A., 951.
- 6-Hydroxynicotinic acid (6-hydroxypyridine-3-carboxylic acid) and its derivatives (KOENIGS and GEIGY), 1884, A., 1195; (v. PECHMANN and WELSH), 1885, T., 150; A., 174; (v. PECHMANN), 1885, A., 176.
- 6-Hydroxynicotinic acid (6-hydroxypyridine-3-carboxylic acid), preparation of, from hydroxyquinolinic acid (KOENIGS and GEIGY), 1884, A., 945.
- Hydroxynitroethenylamido- $\alpha$ -naphthol (MEERSON), 1888, A., 713.
- $\alpha$ -Hydroxy-*o*-nitrophenylbutene- $\omega$ -dicarboxylic acid (EINHORN and GERENBECK), 1890, A., 163.
- Hydroxyoctoic acid (HANTZSCH), 1889, A., 372.  
 salts of (YOUNG), 1883, A., 456; (FITZIG and CHRIST), 1892, A., 962.
- Hydroxyoleic acid and its salts (LIECHTI and SUIDA), 1884, A., 239.
- Hydroxyiso-oxazoledicarboxylic acid (v. PECHMANN), 1891, A., 738.
- Hydroxyoxindole chloride, amido- (JACKSON and BENTLEY), 1892, A., 1219.
- Hydroxyoxydipropionic acid, chloro- (WILLGERODT and SCHIFF), 1890, A., 959.
- $\alpha$ -Hydroxypalmitic acid (HELL and JORDANOFF), 1891, A., 820.
- Hydroxypentanetricarboxylic anhydride (dicarbocaprolactonic acid) and its derivatives (HJELT), 1883, A., 970.
- Hydroxypentene, tetramido- (NIETZKI and ROSEMAN), 1889, A., 770.
- $\alpha$ -Hydroxypentene cyanide,  $\gamma\gamma$ -hexachloro- (ZINCKE and KÜSTER), 1890, A., 1256.
- Hydroxypentenecarboxylic acid,  $\gamma\gamma$ -hexachloro- (ZINCKE and KÜSTER), 1890, A., 754.
- Hydroxyptic acid, identity of, with ethyltartaric acid (GORBOFF), 1888, A., 1179.
- Hydroxyperezone (*hydroxypipitzaholic acid*) (ANSCHÜTZ and LEATHER), 1886, T., 728.  
 and its salts (MYLIUS), 1885, A., 778.  
 dibromide (ANSCHÜTZ and LEATHER), 1886, T., 732.
- Hydroxyphenanthraquinonephosphinic acid (FOSSEK), 1886, A., 530.
- Hydroxyphenanthraquinones (ANSCHÜTZ and MEYER), 1885, A., 1067.
- p*-Hydroxyphenanthrazine (AUTENRIETH and HINBERG), 1892, A., 733.
- Hydroxyphenanthridine (PICTET and ANKERSMIT), 1892, A., 197.
- Hydroxyphenanthroline (LA COSTE), 1883, A., 811.
- Hydroxyphenindulone, chloro- (KEHRMANN and MESSINGER), 1891, A., 747.
- Hydroxyphenonaphthoxanthone (v. KOSTANECKI), 1892, A., 1099; (BENER), 1892, A., 1100.
- Hydroxyphenyl ethyl ketone. See Propionylphenol.

- Hydroxyphenyl hydroxy- $\alpha$ - and - $\beta$ -naphthyl ketones** (PHOMINA), 1890, A., 389, 901.
- Hydroxyphenyl mercaptan** (HAITINGER), 1883, A., 989.
- Hydroxyphenyl hydroxytolyl ketone** (PHOMINA), 1890, A., 389.
- p*-Hydroxyphenylacetamide** (SALKOWSKI), 1889, A., 1173.
- Hydroxyphenylacetamidine and its hydrochloride** (BEYER), 1884, A., 65; 1885, A., 982.
- o*-Hydroxyphenylacetic acid and its derivatives** (v. BAEYER and FRITSCH), 1884, A., 1021.
- m*-Hydroxyphenylacetic acid** (SALKOWSKI), 1884, A., 1176.
- p*-Hydroxyphenylacetic acid** (SALKOWSKI), 1884, A., 1176.
- derivatives of (SALKOWSKI), 1889, A., 1173.
- $\alpha$ -Hydroxyphenylacetic acid.** See Mandelic acid.
- Hydroxyphenylacetimidoether and its hydrochloride** (BEYER), 1884, A., 65; 1885, A., 983.
- Hydroxyphenylacetoneitrile**, acetyl-derivative of (MICHAEL and JEAN-PRÉTRE), 1892, A., 1088.
- imidoethers of (PINNER), 1891, A., 62.
- Hydroxyphenylacridine** (HESS and BERNTHSEN), 1885, A., 801; (BESTHORN and CURTMAN), 1891, A., 1234.
- Hydroxyphenylacrylic acid.** See *p*-Coumaric acid.
- $\alpha$ -Hydroxyphenylacrylic acid** (PLÖCHL), 1884, A., 605.
- p*-Hydroxyphenylalanine** (ERLENMEYER and LIPP), 1883, A., 994.
- o*-Hydroxyphenylallylthiocarbamide** (v. CHELMICKI), 1891, A., 52.
- Hydroxyphenylamidoacetic acid and derivatives** (VATER), 1884, A., 1144.
- Hydroxyphenylbenzenyl naphthylene-diamine** (FISCHER), 1892, A., 1472.
- 6-Hydroxy-4-phenyl-2-benzyl-*m*-diazine and 6-hydroxy-2-phenyl-5-benzyl-4-methyl-*m*-diazine** (PINNER), 1889, A., 1008.
- $\gamma$ -Hydroxyphenylbutyramide** (FITTIG and MORRIS), 1890, A., 890.
- Hydroxy- $\alpha$ -phenylbutyric acid** (JAYNE), 1883, A., 473.
- $\alpha$ -Hydroxy- $\gamma$ -phenylbutyric acid**,  $\gamma$ -bromo- (BIEDERMANN), 1892, A., 471.
- $\alpha$ -Hydroxyphenylisobutyric acid**,  $\beta$ -bromo- (KÖRNER), 1888, A., 368; 1889, A., 372.
- Hydroxyphenylbutyrolactone** (FITTIG), 1888, A., 595; (FITTIG and OBERMÜLLER), 1892, A., 986.
- $\alpha$ -Hydroxy- $\gamma$ -phenylbutyro- $\gamma$ -lactone** (BIEDERMANN), 1892, A., 472.
- $\alpha$ -Hydroxy- $\gamma$ -phenylbutyronitrile**, dibromo- (FISCHER and STEWART), 1892, A., 1447.
- Hydroxyphenylcarbamide** (TRAUBE), 1889, A., 394; (v. DER KALL), 1891, A., 1222.
- Hydroxyphenylcarbamides**, *o*- and *p*- (KALCKHOFF), 1883, A., 734, 735.
- o*-Hydroxy- $\alpha$ -phenylcinchonic acid** (DOEBNER), 1889, A., 410.
- $\alpha$ -Hydroxyphenylcrotonic acid** (PEINE), 1884, A., 1344; (TIEMANN), 1892, A., 471.
- bromo- (FISCHER and STEWART), 1892, A., 1447.
- $\alpha$ -Hydroxyphenylcrotonitrile** (PEINE), 1884, A., 1344.
- 6-Hydroxy-2-phenyl-*m*-diazine-4-carboxylbenzamidine** (PINNER), 1890, A., 69.
- 6-Hydroxy-2-phenyl-*m*-diazine-4-carboxylic acid and amide** (PINNER), 1889, A., 1009.
- 6-Hydroxy-5-phenyl-2:4-dibenzyl-*m*-diazine** (WACHE), 1889, A., 684.
- 2'-Hydroxy-3'-phenyldihydroquinazoline** (PAAL and BODEWIG), 1891, A., 944.
- 6-Hydroxy-2-phenyl-4:5-dimethyl-*m*-diazine** (PINNER), 1889, A., 1008.
- o*-2-Hydroxyphenyl-4:5-dimethylglyoxaline** (WADSWORTH), 1890, T., 10.
- m*-4-Hydroxyphenyl-2:6-dimethylpyridine** (LEPETIT), 1887, A., 1053.
- 1-*o*-Hydroxyphenyl-2:5-dimethylsuccinic acid** (FITTIG and BROWN), 1890, A., 777.
- 1-*o*-Hydroxyphenyl-2:5-diphenylpyrrolone** (PAAL and BRAIKOFF), 1890, A., 264.
- Hydroxyphenylethenylamidine and its hydrochloride** (BEYER), 1884, A., 65.
- Hydroxyphenylethenylamidoxime and its derivatives** (GROSS), 1885, A., 898, 1218.
- $\beta$ -Hydroxyphenylethyl methyl ketone**, *m*-chloro-*o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1099.
- $\beta$ -Hydroxy- $\beta$ -phenylethyl- $\alpha$ -isoamylmalonic acid** (PAAL and HOFFMANN), 1890, A., 1101.
- Hydroxyphenylethyltrichloramidoethane** (BOESSNECK), 1888, A., 588.
- 6-Hydroxy-4-phenyl-2-ethyl-*m*-diazine** (PINNER), 1889, A., 1007.
- Hydroxy- $\beta$ -phenyl- $\alpha$ -ethylpropionic acid** (PERKIN and STENHOUSE), 1891, T., 1009.

**Hydroxy-2-phenylethylpyridine** (*hydroxy- $\alpha$ -stilbazoline*) (BUTTER), 1890, A., 1439.

**Hydroxyphenylformamidine** (COMSTOCK and CLAPP), 1892, A., 708.

***o*-Hydroxyphenylglyoxylic acid** (v. BAeyer and FRITSCH), 1884, A., 1021.

**Hydroxyphenylhexoic acid** (ERDMANN), 1890, A., 377.

**Hydroxyphenylhydrindone** and its hydrazone (v. MILLER and ROHDE), 1892, A., 1221.

**Hydroxyphenylhydrocoumarin** (LIEBERMANN and HARTMANN), 1891, A., 1484.

and its isomerides (LIEBERMANN and HARTMANN), 1892, A., 849.

**2'-Hydroxyphenylhydroquinoline.** See Phenylhydrocarbostyrl.

**6-Hydroxy-4-phenyl-2-hydroxybenzyl-*m*-diazine** (PINNER), 1891, A., 63.

**6-Hydroxy-4-phenyl-2-hydroxy-*iso*-propyl-*m*-diazine** (PINNER), 1890, A., 70.

***p*-Hydroxy-2'-phenyl-4-hydroxyquinoline** (WEIDEL and v. GEORGIEVICS), 1888, A., 967.

**Hydroxyphenylic anthranilate** (v. MEYER and BELLMANN), 1886, A., 358.

sulphide (TASSINARI), 1887, A., 807.

disulphide (LEUCKART), 1890, A., 604.

and its compounds (HAITINGER), 1883, A., 988.

oxidation of the methyl ether of (HAITINGER), 1883, A., 989.

thio- (LEUCKART), 1890, A., 604.

***p*-Hydroxyphenylimidomethylenic ethylenic disulphide** (MIOLATI), 1891, A., 895.

**2'-*p*-Hydroxyphenylindazine** (PAAL), 1891, A., 724.

***o*-Hydroxyphenyllactic acid** (*salicyllactic acid*) (PLÖCHL and WOLFRUM), 1885, A., 899.

***p*-Hydroxyphenyllactic acid** (ERLENMEYER and LIPP), 1883, A., 993.

**$\alpha$ -*m*-Hydroxyphenyl-*p*-methoxy-hydroquinoline and -quinoline** (v. MILLER and KINKELIN), 1887, A., 979, 978.

**Hydroxyphenylmethylamidotrichloroethane** and its derivatives (BOESSENECK), 1888, A., 587.

**Hydroxyphenylmethylisocrotonic acid** (FITTIG), 1890, A., 584; (FITTIG and BROWN), 1890, A., 778.

**4-Hydroxy-2-phenyl-6-methyl-*m*-diazine**, derivatives of (PINNER), 1886, A., 46.

diamido- (PINNER), 1887, A., 1054.

**4-Hydroxy-2-phenyl-6-methyl-*m*-diazine**, 5-bromo- (PINNER), 1887, A., 1053.

**6-Hydroxy-2-phenyl-4-methyl-*m*-diazine** (PINNER), 1885, A., 751; 1889, A., 1008; 1891, A., 468.

**6-Hydroxy-4-phenyl-2-methyl-*m*-diazine** (PINNER), 1889, A., 1007.

**6-Hydroxy-2-phenyl-4-methyl-*m*-diazine-5-acetic acid** (PINNER), 1890, A., 69.

**6-Hydroxy-2-phenyl-4-methyl-*m*-diazine-5-propionic acid** (PINNER), 1890, A., 70.

**6-Hydroxy-2-phenyl-4-methyl-5-ethyl-*m*-diazine** (PINNER), 1889, A., 1008.

**6-Hydroxy-4-phenyl-5-methyl-2-ethyl-*m*-diazine** (SCHWARZE), 1890, A., 1159.

**Hydroxyphenyl-*p*-methylic sulphide** (TASSINARI), 1887, A., 807.

**Hydroxy- $\beta$ -phenyl- $\alpha$ -methylpropionic acid** (PERKIN and CALMAN), 1886, T., 159; (PERKIN and STENHOUSE), 1891, P., 43.

**Hydroxyphenylmethylpyridazone** (ACH), 1890, A., 71.

**$\beta$ -Hydroxyphenylmethylpyrotartaric acid**, salts of (FITTIG and LIEBMANN), 1890, A., 776.

**4'-Hydroxy-2'-phenyl-3-methylquinoline** (JUST), 1886, A., 812.

**Hydroxyphenylmethylquinoxaline** (HINSBERG), 1885, A., 909.

**$\beta$ -Hydroxyphenyl- $\alpha$ -naphthylamine**,  $\alpha\beta$ -dichloro- (ZINCKE and KEGEL), 1889, A., 268.

**6-Hydroxy-4-phenyl-2- $\beta$ -naphthyl-*m*-diazine** (PINNER), 1892, A., 1009.

***p*-Hydroxyphenyl-*m*-nitrophenylthiocarbamide** (STEUEDEMAN), 1884, A., 307.

**Hydroxyphenylphthalamic acid** (PIUTTI), 1886, A., 1027.

***p*-Hydroxyphenylphthalamide** (PIUTTI), 1886, A., 1026.

**Hydroxyphenylpivalic acid.** See  $\beta$ -Hydroxyphenylvaleric acid.

**$\beta$ -Hydroxyphenylpropaldehyde** (*phenyl- $\beta$ -lactic aldehyde*), *m*-chloro-*o*-nitro- (EICHENGRÜN and EINHORN), 1891, A., 1100.

*o*-nitro- (v. BAeyer and DREWSSEN), 1884, A., 58.

*m*-nitro- (GÖHRING), 1885, A., 792.

*p*-nitro-, compound of, with aldehyde, (GÖHRING), 1885, A., 527.

**$\beta$ -Hydroxyphenylpropionamide**, *m*-chloro-*o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1100.



- p*-Hydroxy- $\alpha$ -phenylpropionic acid (*phloretic acid*), artificial formation of (TRINIUS), 1885, A., 529.
- Hydroxy- $\beta$ -phenylpropionic acids, *o*-, *m*- and *p*-. See Hydrocoumaric acids.
- $\alpha$ -Hydroxyphenylpropionic acid. See Phenyl- $\alpha$ -lactic acid.
- $\beta$ -Hydroxyphenylpropionic acid (*phenyl- $\beta$ -lactic acid*), formation of, from ethylic benzoylacetate (PERKIN), 1885, T., 254.
- bromo- (ERLENMEYER), 1883, A., 196; 1891, A., 1482.
- m*-chloro-*o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1099.
- $\alpha$ -iodo- (ERLENMEYER and ROSENHEK), 1887, A., 45.
- o*-nitro- (v. BAEYER and DREWSEN), 1884, A., 58; (EINHORN), 1884, A., 66.
- alcohol of (CALM), 1883, A., 341.
- $\beta$ -lactone of (EINHORN), 1884, A., 65.
- m*-nitro-, lactone of (PRAUSNITZ), 1884, A., 1175.
- p*-nitro- and its ethyl and methyl derivatives (BASLER), 1884, A., 604.
- $\beta$ -lactone of (BASLER), 1884, A., 604.
- o*-, *m*- and *p*-nitro-, etherification of (EINHORN and PRAUSNITZ), 1884, A., 1351.
- $\beta$ -Hydroxyphenylpropionanilide (*phenyl- $\beta$ -lactanilide*), *p*-nitro- (BASLER), 1884, A., 1173.
- $\beta$ -Hydroxyphenylpropyl ketone, *m*-chloro-*o*-nitro- (EICHENGRÜN and EINHORN), 1891, A., 1098.
- $\beta$ -Hydroxyphenylpropyl methyl ketone and its derivatives (v. BAEYER and DREWSEN), 1883, A., 341; (v. BAEYER and BECKER), 1883, A., 1120; (EICHENGRÜN and EINHORN), 1890, A., 1128; 1891, A., 1099.
- Hydroxyphenylpyrazoline. See Phenylpyrazolone.
- 2-Hydroxy-phenyl- $\gamma$ -pyridone, 3:5-dichloro-, and its carboxylic acid (ZINCKE), 1890, A., 964; (ZINCKE and FUCHS), 1892, A., 449, 448.
- Hydroxyphenylpyrotartaric acid (*phenylitamic acid*), *m*- and *p*-nitro-, and barium salts of (SALOMONSON), 1888, A., 480.
- 2'-*o*-Hydroxyphenylquinoline (*phenolquinoline*) (DOKENER), 1889, A., 410.
- 2'-*m*-Hydroxyphenylquinoline (*phenolquinoline*), and its salts (v. MILLER and KINKELIN), 1885, A., 1145.
- 2'-*p*-Hydroxyphenylquinoline (*phenolquinoline*) (WEIDEL), 1887, A., 847.
- 3-Hydroxy-2'-phenylquinoline, *p*-amido- (WEIDEL and v. GEORGIEVICS), 1888, A., 967.
- 4'-Hydroxy-2'-phenylquinoline (JUST), 1886, A., 811; (KNORR), 1888, A., 1113.
- synthesis of (CONRAD and LIMPACH), 1888, A., 505.
- 4'-Hydroxyphenylquinolines,  $\alpha$ - and  $\beta$ - (KOENIGS and MAT), 1887, A., 599.
- 4'-Hydroxy-2'-phenylquinoline-3'-carboxylic acid, and its ethyl salt (JUST), 1886, A., 161, 811.
- $\alpha$ -Hydroxy- $\alpha$ - and - $\beta$ -phenylsuccinic acids. See  $\alpha$ - and  $\beta$ -Phenylmalic acids.
- Hydroxyphenylsulphonic acid. See Phenolsulphonic acid.
- Hydroxy-2'-phenyltetrahydroquinoline (WEIDEL), 1887, A., 848.
- $\mu$ -Hydroxy- $\alpha$ -phenylthiazole (ARAPIDES), 1889, A., 413.
- chloro- (SCHATZMANN), 1891, A., 745.
- Hydroxyphenylthiocarbamide (FISCHER), 1889, A., 1164; (TIEMANN), 1889, A., 1165; (VOLTMER), 1890, A., 1126; 1891, A., 558; (v. DER KALL), 1891, A., 1222.
- p*-Hydroxyphenylthiocarbamide (KALCKHOFF), 1883, A., 735.
- 3-Hydroxyphenyltoluenesulphonic acid, 4:4'-diamido- (WEINBERG), 1888, A., 285.
- m*-Hydroxyphenyltolylamine (ZEGA and BUCH), 1886, A., 873.
- Hydroxyphenyl-*o*-tolylamines, *m*- and *p*- (PHILIP), 1886, A., 942, 941.
- m*-Hydroxyphenyl-*p*-tolylamine, nitroso- (HATSCHEK and ZEGA), 1886, A., 455.
- Hydroxyphenyl-*p*-tolylamines, *m*- and *p*-, and their derivatives (HATSCHEK and ZEGA), 1886, A., 455.
- 6-Hydroxy-4-phenyl-2-*p*-tolyl-*m*-diazine (PINNER), 1891, A., 470.
- Hydroxyphenyltolylethanes, *o*- and *m*- (KOENIGS and CARL), 1892, A., 446.
- Hydroxyphenyltriphthalamic acid (PUTTI), 1886, A., 1027.
- $\beta$ -Hydroxyphenylvaleric acid (*hydroxyphenylpivalic acid*) (FITTIG and JAYNE), 1883, A., 471.
- and its derivatives (OTT), 1885, A., 663.
- $\gamma$ -Hydroxyphenylvaleric acid (FITTIG and STERN), 1892, A., 988.
- $\gamma$ -Hydroxyphenylisovaleric acid, salts of (FITTIG and LIEBMANN), 1890, A., 776.
- Hydroxyphenylvalerolactone (FITTIG and MAYER), 1892, A., 986.

- Hydroxyphosphinic acids** (FOSSEK), 1885, A., 504; 1886, A., 529.
- Hydroxyphosphinous acids** (VILLE), 1890, A., 618.
- Hydroxyisophthalaldehydes**,  $\alpha$ - and  $\beta$ - (VOSWINCKEL), 1883, A., 190.
- Hydroxyphthalanilide** (PIUTTI), 1886, A., 1026.
- 1:2:3-Hydroxyphthalic acid** (JACOBSEN), 1883, A., 1124; (MILLER), 1884, A., 1177; (STOKES), 1885, A., 540. *dinitro- (juglonic acid)* (BERNTSEN and SEMPER), 1885, A., 548.
- 1:3:4-Hydroxyphthalic acid** (GRAEBE), 1885, A., 902; (GRAEBE and RÉE), 1886, T., 522; P., 211.
- Hydroxyisophthalic acid** (VOSWINCKEL), 1883, A., 190.
- $\beta$ -Hydroxyphthalide** (GRAEBE and RÉE), 1886, T., 525.
- $\beta$ -Hydroxyphthalimide** (GRAEBE and RÉE), 1886, T., 524.
- $\beta$ -Hydroxy- $\beta$ -phthalimidoethyl sulphide** (GABRIEL), 1892, A., 130.
- p*-Hydroxypiazthiole** (AUTENRIETH and HINSBERG), 1892, A., 734.
- $\alpha$ -Hydroxypicolinic acid** ( *$\alpha$ -hydroxypyridinecarboxylic acid*), and its salts (OST), 1883, A., 795. *dichloro-* (OST), 1883, A., 795.
- $\beta$ -Hydroxypicolinic acid** ( *$\beta$ -hydroxypyridinecarboxylic acid*) (OST), 1883, A., 795; 1885, A., 49. *chloro- [ $\beta$ -acid]* (OST), 1883, A., 795. *chloro- [ $\gamma$ -acid]* (SEYFFERTH), 1887, A., 158.
- $\gamma$ -Hydroxypicolinic acid and chloro-** (BELLMANN), 1884, A., 840.
- Hydroxypimelic acid** (SCHLEICHER), 1892, A., 428.
- 6-Hydroxy-2-pipecoline** (BUNZEL), 1889, A., 904.
- Hydroxypiperhydronic acid** (WEINSTEIN), 1885, A., 664.
- Hydroxypiperic acids**,  $\alpha$ - and  $\beta$ -, oxidation of (REGEL), 1887, A., 488.
- 2-Hydroxypiperidine** (WOLFFENSTEIN), 1892, A., 1845.
- Hydroxypiperohydro lactone** (REGEL), 1887, A., 488.
- $\beta$ -Hydroxypiperonylethyl methyl ketone** (*piperonyllactyl methyl ketone*), and bromo- (OELKER), 1891, A., 1476.
- Hydroxypipitzahoic acid.** See Hydroxyperezone.
- Hydroxypropamidine salts** (PINNER), 1891, A., 63.
- $\alpha$ -Hydroxypropenylamidoxime**,  $\beta$ -trichloro- (RICHTER), 1892, A., 321.
- Hydroxypropenylbenzoic acid** ( *$p$ -propenylsalicylic acid*) (HEYMANN and KOENIGS), 1887, A., 241.
- $\alpha$ -Hydroxypropenylethenylazoxime**,  $\beta$ -trichloro- (RICHTER), 1892, A., 321.
- $\alpha$ -Hydroxypropionic acid.** See Lactic acid.
- $\beta$ -Hydroxypropionic acid.** See Hydroacrylic acid.
- Hydroxypropionitrile**, imidoethers of (PINNER), 1891, A., 62.
- $\omega$ -Hydroxypropyl phenyl ketone** (PERKIN), 1885, T., 844.
- $\beta$ -Hydroxypropylacridine**,  $\omega$ -trichloro- (*methylacridinechloral*) (BERNTSEN and MUHLERT), 1887, A., 849.
- $\alpha$ -Hydroxypropylamine** (*amidoisopropyl alcohol*) (LIEBERMANN and PAAL), 1883, A., 909.
- $\beta$ -Hydroxypropylamine**, trichloro- (FAUCONNIER), 1888, A., 1265.
- $\gamma$ -Hydroxypropylamine** (GABRIEL and WEINER), 1888, A., 1293.
- Hydroxypropylamine** (LIEBERMANN and PAAL), 1883, A., 910.
- $\beta$ -Hydroxypropylbenzamide** (HIRSCH), 1890, A., 860.
- 4-Hydroxyisopropylbenzoic acid**, 2-amido- (WIDMAN), 1886, A., 466.   
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- 2:5- dibromo-** (FILETI and BONISCONTRO), 1892, A., 604.
- 2-nitro-** (WIDMAN), 1886, A., 466.
- 3-nitro-**, and its derivatives (WIDMAN), 1883, A., 330; 1884, A., 316.
- exo-Hydroxyisopropylbenzoic acid**, 3-amido- (WIDMAN), 1884, A., 317.   
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- Hydroxypropylcarboxylphenylurethane** (WIDMAN), 1884, A., 1023.
- Hydroxyisopropyl diphenylene ketone-carboxylic acid** (BAMBERGER and HOOKER), 1885, A., 1070.
- Hydroxypropylene piperidine** ( *$\alpha$ -lupetidylalkine*) (LADENBURG), 1891, A., 1119.
- Hydroxypropylhydroxybenzoic acid** (WIDMAN), 1884, A., 1022.
- $\alpha$ -Hydroxy- $\beta$ -propylidenebutyramide** (JOHANNY), 1891, A., 38.
- Hydroxypropylmalonic acid**, salts of (HJELT), 1883, A., 456.
- Hydroxypropylmethylaniline** (*phenyl-methylpropylalkine*) (LAUN), 1884, A., 1011.

- Hydroxypropylpiperidine** (*piperpropylalkine*), and its derivatives (LAUN), 1884, A., 1054; (ENGLER and BAUER), 1891, A., 1505.
- $\alpha$ -Hydroxypropylpiperidine.** See Conhydrin.
- $\beta$ -Hydroxypropylpiperidine** ( *$\alpha$ -pipecolylmethylalkine*) (LADENBURG), 1890, A., 68.
- Hydroxypropylphosphinic acid** (FOSSEK), 1886, A., 530.
- Hydroxypropylphthalamic acid** (GABRIEL and LAUER), 1890, A., 472.
- $\gamma$ -Hydroxypropylphthalimide** (GABRIEL and LAUER), 1890, A., 472; (LAUER), 1890, A., 1089.
- Hydroxypropylphthalimide,** nitro- (NEUMANN), 1890, A., 890.
- Hydroxypropylpyridine** [b.p. 213°] (ENGLER and BAUER), 1891, A., 1505.
- Hydroxypropylpyridine** ( *$\alpha$ -lutidylalkine*) (ALEXANDER), 1890, A., 1447; (LADENBURG), 1891, A., 1119.
- $\beta$ -Hydroxypropylpyridine** ( *$\alpha$ -picolylmethylalkine*) (LADENBURG), 1890, A., 68.
- $\alpha$ -Hydroxypropylpyridine,**  *$\omega$ -trichloro-* (EINHORN and LIEBRECHT), 1887, A., 845.
- $\alpha$ -Hydroxypropylquinoline,** *trichloro-* (EINHORN), 1886, A., 721.
- 2'-Hydroxy-2-isopropylquinoline** (WIDMAN), 1886, A., 465.
- Hydroxypropylsuccinic acid,** lactone of (HJELT), 1883, A., 656, 971.
- Hydroxy-*p*-isopropylsalicylic acid** (HEYMAN and KOENIGS), 1887, A., 241.
- 2-Hydroxypyridine** ( *$\alpha$ -pyridone*) (KOENIGS and KÖRNER), 1884, A., 85; (KOENIGS and GEIGY), 1884, A., 1195; (FEER and KOENIGS), 1886, A., 1044; (V. PECHMANN and BALTZER), 1892, A., 208.
- di*bromo- (KOENIGS and GEIGY), 1884, A., 1195.
- di*chloro- (KOENIGS and GEIGY), 1884, A., 1369.
- 3:5-*di*iodo- (PFEIFFER), 1887, A., 845.
- 3-Hydroxypyridine** (FISCHER and RENOUF), 1884, A., 1050; (KOENIGS and GEIGY), 1884, A., 1369.
- from pyridinesulphonic acid, derivatives of (FISCHER and RENOUF), 1884, A., 1370.
- di*bromo- and its salts (FISCHER), 1884, A., 1370.
- 4-Hydroxypyridine** (*chelamide*) (LERCH), 1885, A., 46; (HAITINGER and LIEBEN), 1885, A., 811, 966.
- 4-Hydroxypyridine** (*chelamide*) from  $\beta$ -hydroxypicolinic acid (OST), 1885, A., 50.
- and its *di*bromo-derivative (LIEBEN and HAITINGER), 1883, A., 871.
- 6-Hydroxypyridine,** 2:3:5-*trichloro*-4-amido- (STOKES and V. PECHMANN), 1887, A., 156.
- Hydroxypyridine,** amido- [m.p. 214°], and its derivatives (KRIPPENDORFF), 1885, A., 1243.
- Hydroxypyridine-bases,** synthesis of (LADENBURG), 1890, A., 67; 1891, A., 1092.
- $\alpha$ -Hydroxypyridinecarboxylic acid** ( *$\alpha$ -hydroxypicolinic acid*) and its salts (OST), 1883, A., 795.
- di*chloro- (OST), 1883, A., 795.
- $\beta$ -Hydroxypyridinecarboxylic acid** ( *$\beta$ -hydroxypicolinic acid*) (OST), 1883, A., 795; 1885, A., 49.
- chloro- (OST), 1883, A., 795.
- 2-Hydroxypyridine-3-carboxylic acid** (*2-hydroxynicotinic acid*) (WEIDEL and STRACHE), 1886, A., 951.
- 6-Hydroxypyridine-3-carboxylic acid** (*6-hydroxynicotinic acid*), and its derivatives (KOENIGS and GEIGY), 1884, A., 1195; (V. PECHMANN and WELSH), 1885, T., 150; A., 174; (V. PECHMANN), 1885, A., 176.
- preparation of, from hydroxyquinolinic acid (KOENIGS and GEIGY), 1884, A., 945.
- 2-Hydroxypyridine-3:4-dicarboxylic acid** ( *$\alpha$ -hydroxycinchomeronic acid*) (WEIDEL and STRACHE), 1886, A., 951.
- 4-Hydroxypyridine-2:6-dicarboxylic acid.** See Ammonchelidonic acid.
- 6-Hydroxypyridine-2:3-dicarboxylic acid** (*hydroxyquinolinic acid*), and its salts (KOENIGS and KÖRNER), 1884, A., 85; (KOENIGS and GEIGY), 1884, A., 1195; (FEER and KOENIGS), 1885, A., 1236.
- 3-Hydroxypyridyl-2-butyric acid.** See Morrhuc acid.
- Hydroxypyrotartaric acid** (*itamic acid*) and its salts (BEER), 1883, A., 457.
- trichloro-*, salts of (FITTIG and MILLER), 1890, A., 536.
- Hydroxypyruvic acid** (WILL), 1891, A., 542.
- osazone of (WILL), 1892, A., 356.
- Hydroxyquinaldine.** See Hydroxy-2'-methylquinoline.
- Hydroxyquinhydrone** (BARTH and SCHREDER), 1885, A., 520.



**Hydroxyquinol**, the third isomeric trihydroxybenzene (BARTH and SCHREDER), 1883, A., 987; 1885, A., 520.

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**Hydroxyquinoline, 3'-amido-** [m.p. 109°–110°], and the action of its diazo-salts on phenols and tertiary bases (RIEMERSCHMIED), 1883, A., 1148.

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**1-Hydroxyquinoline**, bromo- [m.p. 119°] (SCHMITT and ENGELMANN), 1888, A., 67.

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*di*bromo- (CLAUS and POSSELT), 1890, A., 523.

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**3'-Hydroxyquinoline** and its derivatives (RIEMERSCHMIED), 1883, A., 1147.

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**Hydroxyisoquinoline**, *mono-* and *di*-chloro- (RÜGHEIMER), 1886, A., 702.

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- 1-Hydroxyquinolinecarboxylic acid** [m.p. 250°] (LIPPMANN and FLEISSNER), 1887, A., 63, 1119; 1888, A., 1092.  
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- 1-Hydroxyquinolinecarboxylic acid** [m.p. 235°] (SCHMITT and ENGELMANN), 1887, A., 738; 1888, A., 66.  
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- 2'-Hydroxyquinoline-3'-carboxylic acid** (*carbostyrlcarboxylic acid*) (FRIEDLÄNDER and GÖHRING), 1884, A., 1020.
- 2-Hydroxyquinoline-4' (?) -carboxylic acid** (*xanthoquinic acid*) (SKRAUP), 1884, A., 86.
- 2'-Hydroxyquinoline-4'-carboxylic acid** (*hydroxyquinonic acid*) (KOENIGS and KÖRNER), 1884, A., 84.
- 3-Hydroxyquinolinecarboxylic acid** (LIPPMANN and FLEISSNER), 1887, A., 1120; (SCHMITT and ALTSCHUL), 1888, A., 67.
- 1-Hydroxyquinolinedisulphonic acid** (LIPPMANN and FLEISSNER), 1890, A., 268; (CLAUS and POSSELT), 1890, A., 523.
- 3-Hydroxyquinoline-1'-methylbetaine** (CLAUS and HOWITZ), 1891, A., 1252.
- 3-Hydroxyquinoline-1:4-quinone**, 2-chloro-, and its anilide (ZINCKE), 1891, A., 1251.
- 1-Hydroxyquinolinesulphonic acid** (LIPPMANN and FLEISSNER), 1890, A., 268.
- 1-Hydroxyquinoline-4-sulphonic acid** (CLAUS and POSSELT), 1890, A., 522.  
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- 2'-Hydroxyquinolinesulphonic acid** (*carbostyrlsulphonic acid*) (LA COSTE and VALEUR), 1886, A., 629; 1887, A., 379.
- 3-Hydroxyquinolinesulphonic acid** (CLAUS and POSSELT), 1890, A., 523.  
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- 3'-Hydroxyquinolinesulphonic acid** (LA COSTE and VALEUR), 1886, A., 629; 1888, A., 297.  
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- Hydroxyquinolinic acid** (*6-hydroxypyridine-2:3-dicarboxylic acid*), and its salts (KOENIGS and KÖRNER), 1884, A., 85; (KOENIGS and GEIGY), 1884, A., 1195; (FEER and KOENIGS), 1885, A., 1236.
- Hydroxyquinone**, tribromo- (BARTH and SCHREDER), 1885, A., 520.  
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- Hydroxyquinoneimide**, chloramido- (KEHRMANN), 1890, A., 241.
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- 3-Hydroxyquinoxaline** (AUTENRIETH and HINSBERG), 1892, A., 732.
- 2'-Hydroxyquinoxaline-3'-carboxylic acid** (KÜHLING), 1891, A., 1342.
- Hydroxyresazoin** (EHRlich), 1888, A., 145.
- Hydroxysebacic acid** (CLAUS and STEINKAULER), 1888, A., 134.
- $\alpha$ -Hydroxystearic acid** (HELL and SADOMSKY), 1891, A., 1336.
- $\beta$ -Hydroxystearic acid** (SAYTZEFF), 1886, A., 140; (M., C. and A. SAYTZEFF), 1887, A., 30; (GEITEL), 1888, A., 578.
- $\gamma$ -Hydroxystearic acid** (GEITEL), 1888, A., 578.
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- Hydroxy- $\alpha$ -stilbazoline**. See Hydroxy-2-phenylethylpyridine.
- p*-Hydroxystyrolene** (BERNTHSEN and BENDER), 1883, A., 70.
- o*-Hydroxystyryl methyl ketone** (*methyl coumaro ketone*) and its derivatives (HARRIES), 1892, A., 169.
- Hydroxystyrylhydantoin bromide** (PINNER and SPILKER), 1889, A., 706.
- Hydroxy-2'-styrylpyridine** (*hydroxy- $\alpha$ -stilbazole*) (BUTTER), 1890, A., 1438.
- Hydroxysuberic acid** and its salts (HELL and REMPEL), 1885, A., 756; (HEMPEL), 1885, A., 757.
- p*-Hydroxy-*o*-sulphobenzoic acid** (HEDRICK), 1888, A., 280; (PISANELLO), 1889, A., 1063.
- p*-Hydroxy-*m*-sulphobenzoic acid** and its salts (KLEPL), 1884, A., 446.
- 1-Hydroxy-4-sulpho- $\beta$ -naphthoic acid** (KÖNIG), 1889, A., 719; 1890, A., 636.

- Hydroxysulphonebenzide** (*dihydroxydiphenylsulphone*) (TASSINARI), 1889, A., 245.
- Hydroxyterebic acid**, salts of (ROSER), 1884, A., 459.
- Hydroxyterephthalic acid**, reduction products of (v. BAEYER and TUTEIN), 1889, A., 1180.
- $\Delta^3$ -Hydroxytetrahydrobenzylidimethylamine** (MERLING), 1892, A., 359.
- Hydroxytetrahydronaphthoic acid**, bromo-, lactone of (v. BAEYER, SCHODER and BESEMFELDER), 1892, A., 193.
- 1-Hydroxytetrahydroquinoline**, preparation of methyl and ethyl derivatives of (ANON.), 1883, A., 871.
- 3-Hydroxytetrahydroquinoline**, bromo-, hydrochloride (SRPEK), 1890, A., 177.
- 1-Hydroxytetrahydroquinolinecarboxylic acid** (LIPPMANN and FLEISSNER), 1887, A., 1119.
- Hydroxytetrahydroterephthalic acid** (v. BAEYER and TUTEIN), 1889, A., 1180.
- Hydroxytetramethylenecarboxylic acid** (PERKIN and SINCLAIR), 1892, T., 44.
- Hydroxytetramethylhexahydropyridine**. See Triacetonealkamine.
- Hydroxytetramethylpropylenediamine** (BEREND), 1884, A., 1114.
- 4'-Hydroxy-1:3:4:2'-tetramethylquinoline** (CONRAD and LIMPACH), 1888, A., 504.
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- Hydroxytetrethylpropylenediamine** (BEREND), 1884, A., 1114.
- Hydroxytetric acid**. See Methylsuccinic acid.
- o*-Hydroxythiocarbanilide** (KALCKHOFF), 1883, A., 1110.
- p*-Hydroxythiocarbanilide** (KALCKHOFF), 1883, A., 735.
- Hydroxythionaphthene** (BIEDERMANN), 1886, A., 788.
- Hydroxythiotolen**. See Hydroxymethylthiophen.
- Hydroxythiotoluene** (TRUHLAR), 1887, A., 473.
- Hydroxythymophenindulone** (KEHRMANN and MESSINGER), 1891, A., 747.
- Hydroxythymoquinone** (MAZZARA), 1890, A., 965; (KOWALSKI), 1892, A., 1098.
- constitution of (MAZZARA), 1890, A., 884.
- derivatives, constitution of (MAZZARA), 1891, A., 297.
- Hydroxythymoquinoneimide**, amido- (ANSCHÜTZ and LEATHER), 1886, T., 725.
- 2-Hydroxy-*m*-tolenylamidoxime** (*o*-homosalicylamidoxime) (PASCHEN), 1892, A., 320.
- 4-Hydroxy-*m*-tolenylamidoxime** (*p*-homosalicylamidoxime) (GOLDBECK), 1892, A., 319.
- 6-Hydroxy-*m*-tolenylamidoxime** (*o*-homo-*p*-hydroxybenzenylamidoxime) (PASCHEN), 1892, A., 320.
- Hydroxytolenylazoxime**. See under Azo-.
- 2-Hydroxy-*m*-tolualdehyde** (*o*-homosalicylaldehyde) and oxime of (PASCHEN), 1892, A., 320.
- 6-Hydroxy-*m*-tolualdehyde** (*o*-homo-*p*-hydroxybenzaldehyde) and oxime and phenylhydrazone of (PASCHEN), 1892, A., 320.
- 4-Hydroxy-*m*-tolualdoxime and -toluamide** (*p*-homo-salicyl-aldoxime and -amide) (GOLDBECK), 1892, A., 318.
- Hydroxytoluocarbostryl**. See Hydroxymethylcarbostryl.
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- o*-Hydroxytoluic acid** (*o*-hydroxymethylbenzoic acid) (HJELT), 1892, A., 715.
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- p*-Methoxybenzyl cyanide** (SALKOWSKI), 1889, A., 1173.
- p*-Methoxybenzylideneamidodimethylaniline** (NUTH), 1885, A., 784.
- o*-Methoxybenzylideneamidophenols** (HAEGELE), 1892, A., 1451.
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- o*-Methoxybenzylidene-dimethyl-*p*-phenylenediamine** and **- $\beta$ -naphthylamine** (STEINHART), 1888, A., 52.
- o*-Methoxybenzylidenemalononic acid** (STUART), 1887, P., 118; 1888, T., 142.
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- p*-Methoxybenzylidenic ethylenic disulphide** (FASBENDER), 1888, A., 805.
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- Methoxycinnamic acid** (*methylcoumaric acid*), *o*-nitro- (v. MILLER and KINKELIN), 1889, A., 989.
- m*-Methoxycinnamic acid** (TIEMANN and LUDWIG), 1883, A., 189.
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- m*-amido- and *m*-nitro- (SCHNELL), 1884, A., 1165; 1887, A., 140.
- p*-Methoxycinnamic acid** (VALENTINI), 1885, A., 264; (MAGNANIMI), 1886, A., 467.
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- m*-nitro- (EINHORN and GRABFIELD), 1888, A., 478.
- p*-Methoxy-coumarilic acid** and -coumarone (WILL and BECK), 1886, A., 881.
- Methoxycresol** (LIMPACH), 1892, A., 447.
- 6-Methoxy- $\psi$ -cumene**, 2:5-*di*bromo- and *m*-nitro- (AUWERS), 1886, A., 144.
- Methoxycymene** and its nitro-derivative (JESURUN), 1886, A., 696.
- Methoxydeoxybenzoin** (NEY), 1888, A., 1197.
- Methoxydiallylacetic acid** and its ethylic salt (SCHATZKI), 1885, A., 512; (BARATAEFF), 1887, A., 359.
- p*-Methoxydiazobenzenesulphonic acid**, salts of (ALTSCHUL), 1892, A., 1081.
- 4-Methoxy-2:6-dimethylpyridine** (*methoxylutidine*) (CONRAD and ECKHARDT), 1889, A., 520.
- 3-Methoxy-2':4'-dimethylquinoline** (CONRAD and LIMPACH), 1888, A., 853.
- p*-Methoxydiphenylcarbinylamine** (*p-methoxybenzhydrylamine*) (HANTZSCH and KRAFT), 1892, A., 338.
- o*-Methoxy-1:3-diphenylpyrazolone** (TAHARA), 1892, A., 844.
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- 3-Methoxy-4-ethoxyallylbenzene** (*eugenyl ethyl ether*), *tribromide* (WOY), 1890, A., 638.
- Methoxyethylbenzoic acid**, *o*-chloro-nitro- (ZINCKE and LATTEN), 1892, A., 1231.
- Methoxyhydrocotarnine methiodide** (ROSER), 1890, A., 531.
- p*-Methoxyhydrocoumarilic acid** (WILL and BECK), 1886, A., 881.
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- o*-Methoxymandelic acid** (VOSWINCKEL), 1883, A., 190.
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- Methoxy-*m*-methylbenzanilides**, *o*- and *p*- (LEUCKART), 1890, A., 760.
- $\gamma$ -Methoxymethyl- $\psi$ -carbostyryl** (FRIEDLÄNDER and MÜLLER), 1887, A., 977.
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- 6-Methoxymethyl-*p*-phenylenediamine** (BEST), 1890, A., 608.
- Methoxymethylphthalic acid**, *di*bromo- (WILL and LEYMANN), 1886, A., 254.
- Methoxymethylpropyl-benzanilide** and -benzoic acid (LEUCKART), 1890, A., 760.
- Methoxymethylquinolines** (HERZFELD), 1884, A., 1199.
- Methoxy-2'-methylquinoline** (CONRAD and LIMPACH), 1887, A., 680.
- 4'-Methoxy-2'-methylquinoline methiodide** (CONRAD and ECKHARDT), 1889, A., 520.
- 3-Methoxy-2'-methylquinoline**, 4'-chloro- (CONRAD and LIMPACH), 1888, A., 853.
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- 3-Methoxy-4'-methylquinoline** (KOEINGS), 1890, A., 1433.
- 1-Methoxy-2'-methyltetrahydroquinoline** (DOEBNER and v. MILLER), 1884, A., 1374.
- 1-Methoxy-1'-methyltrihydroquinoline** (KOHN), 1886, T., 501; P., 210.
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- 1-Methoxynaphthalene**, 2:4-bromo-nitro- (MELDOLA), 1885, T., 502.
- Methoxynaphthalenes**,  $\alpha$ - and  $\beta$ - (STAEDL), 1883, A., 585.
- $\beta$ -Methoxynaphthalenesulphonic acids** (PERCIVAL), 1889, P., 73.
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- p*-Methoxynicotinic acid** (v. PECHMANN and WELSH), 1885, T., 154; P., 6; A., 175.



- p*-Methoxynicotinic acid, constitution of (v. PECHMANN), 1885, A., 558.
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- p*-Methoxyphenoxycinnamic acid (VALENTINI), 1885, A., 264.
- p*-Methoxyphenylacetamide- and -acetonitrile (SALKOWSKI), 1889, A., 1173.
- p*-Methoxyphenylacetic acid (SALKOWSKI), 1884, A., 1176.
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- p*-Methoxyphenylacryl methyl ketone (EINHORN and GRABFIELD), 1888, A., 477.
- p*-Methoxyphenylacrylic acid (EINHORN and GRABFIELD), 1888, A., 477.
- m*-Methoxyphenyl- $\beta$ -bromopropionic acid, *o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1127.
- o*-Methoxy- $\alpha$ -phenylcinchonic acid (DOEBNER), 1889, A., 411.
- 1-*p*-Methoxyphenyl-2,3-dimethylpyrazolone (ALTSCHUL), 1892, A., 1082.
- p*-Methoxyphenylethylene, *m*-nitro- (EINHORN and GRABFIELD), 1888, A., 477.
- p*-Methoxyphenylglyoxylic acid (GARELLI), 1891, A., 711.
- p*-Methoxyphenylhydrazine (ALTSCHUL), 1892, A., 1082.
- p*-Methoxyphenylhydrazinesulphonic acid, salts of (ALTSCHUL), 1892, A., 1081.
- 3-Methoxy-2'-phenylhydroquinoline, 2-amido- (v. MILLER and KINKELIN), 1887, A., 978.
- m*-Methoxyphenyllactamide, *o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1128.
- m*-Methoxyphenyllactic acid, *o*-nitro- (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1100.
- 4-Methoxy-1-phenyl-3-methylphenylamine (PHILIP and CALM), 1885, A., 155.
- $\alpha$ -Methoxy-*v*-phenyl- $\beta$ -methyl- $\mu$ -thiomethylglyoxaline (MARCKWALD, NEUMARK and STELZNER), 1892, A., 152.
- p*-Methoxyphenyloximidoacetic acid (GARELLI), 1892, A., 328.
- o*-Methoxyphenylphenamidoacetic acid, nitrile of (VOSWINCKEL), 1883, A., 190.
- az*-*o*-Methoxyphenylaldehydephenylnaphthotriazine (MELDOLA and FORSTER), 1891, T., 697.
- p*-Methoxyphenylpropionic acid, dibromo-*m*-nitro- (EINHORN and GRABFIELD), 1888, A., 478.
- 1-Methoxy-2'-phenylquinoline (DOEBNER), 1889, A., 411.
- 3-Methoxy-2'-phenylquinoline (DOEBNER), 1889, A., 411.
- 2-nitro-, and its derivatives (v. MILLER and KINKELIN), 1887, A., 978.
- Methoxyphenylthiocarbamide (TIE-MANN), 1889, A., 1165; (VOLTMER), 1890, A., 1126; 1891, A., 558.
- p*-Methoxyphenyl-*p*-tolylmethylamine (HATSCHKE and ZEGA), 1886, A., 457.
- Methoxyisopropylstilbene (MAGNANIMI), 1886, A., 468.
- 2-Methoxypyridine (v. PECHMANN and BALTZER), 1892, A., 209.
- 4-Methoxypyridine (HAITINGER and LIEBEN), 1885, A., 811.
- Methoxyquinine methiodide (GRIMAU), 1892, A., 1363.
- Methoxyquinol (WILL), 1888, A., 458; (SCHWEITZER), 1889, A., 390.
- 1-Methoxyquinoline (SKRAUP), 1883, A., 93.
- 2-Methoxyquinoline (FISCHER), 1883, A., 91.
- 3-Methoxyquinoline (VULPIUS), 1885, A., 398; (SKRAUP), 1886, A., 79.
- 1'-Methoxyisoquinoline, 3'-chloro- [m.p. 73°-74°] (GABRIEL), 1887, A., 62.
- 3-Methoxyquinoline-4'-carboxylic acid (*quininic acid*) (SKRAUP), 1884, A., 86.
- 6-Methoxy-2,3-quinolinic acid (FEER and KOENIGS), 1885, A., 1235.
- 1-Methoxyquinolyl-1-hydroxyquinoline methiodide (LIPPMANN and FLEISSNER), 1890, A., 174.
- p*-Methoxyquinolylquinolines (*methoxydiquinolylines*),  $\alpha$ - and  $\beta$ - (v. MILLER and KINKELIN), 1887, A., 979.
- Methoxyquinone, derivatives of (SCHWEITZER), 1889, A., 389.
- 2-Methoxyquinone (WILL), 1888, A., 458.
- Methoxyquinonedioxime (BEST), 1890, A., 608.
- Methoxysalicylic acid, dibromo- (PERATONER), 1887, A., 487.
- Methoxysuccinamide (PURDIE and MARSHALL), 1891, T., 470; P., 82.
- Methoxysuccinic acid (BREDT), 1883, A., 176; (PURDIE and MARSHALL), 1891, T., 471; P., 82.
- and its salts, properties of (PURDIE), 1885, T., 863.
- 1-Methoxystyrylpyridine (SCHUFTAN), 1890, A., 1438.
- 3-Methoxytetrahydroquinoline (*tetrahydro-p-quinanisole*; "*thallin*") (SKRAUP), 1886, A., 80; (DRAGENDORFF and BLUMENBACH), 1887, A., 871.

- 3-Methoxytetrahydroquinoline** (*tetrahydro-p-quinanisoil*; "*thallin*"), preparation of (ANON.), 1885, A., 1023.  
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- $\alpha$ -Methoxy- $\mu$ -thiomethoxy- $\nu\beta$ -dimethylglyoxaline** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 153.
- $\alpha$ -Methoxy- $\mu$ -thiomethoxy- $\beta$ -methyl- $\nu$ -o- and - $p$ -tolylglyoxalines** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 152.
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- $p$ -Methoxytoluene** (*tolyl methyl ether*), amido-derivatives of (LIMPACH), 1889, A., 698.  
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- Methoxytoluenesulphonic acid** (HEFFTER), 1884, A., 454.
- 4-Methoxy- $m$ -toluonitrile** (*homomethylsalicylonitrile*) (LIMPACH), 1889, A., 499.
- Methoxytriphenylmethane**, diamido- (MAZZARA and POSSETTO), 1885, A., 1141.
- Methronene** (ERDMANN), 1885, A., 528.
- Methronic acid** (*methylfurfurancarboxylic acid*; *sylvanecarboxylic acid*) (FITTIG), 1886, A., 225; (POLONOWSKY), 1888, A., 1067; (FITTIG and HANTZSCH), 1889, A., 126; (V. EYNERN), 1889, A., 592.  
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- Methyl amyl ketone** (*methylisopropylacetone*) (VAN ROMBURGH), 1887, A., 232.  
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- Methyl isoamyl ketone** (SOKOLOFF), 1888, A., 125.  
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- Methyl bromobutyl ketone**, preparation of (LIPP), 1886, A., 219.
- Methyl bromopropyl ketone** (LIPP), 1889, A., 844.
- Methyl butallyl pinacone** (KABLUKOFF), 1888, A., 1170.
- Methyl isobutenyl ketone** (*mesityl oxide*; *isopropylideneacetone*), magnetic rotatory power of (PERKIN), 1887, P., 98; 1888, T., 586, 591.  
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- Methyl isobutenyl ketoxime** (*mesityl oxime*; *isopropylideneacetoneoxime*) (NÄGELI), 1883, A., 728.
- Methyl butyl ether** (HENRY), 1892, A., 27.
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- Methyl isobutyl ketone** (KUWSCHNOFF), 1888, A., 125; (WAGNER), 1892, A., 36.
- Methyl isobutyl diketone** (*diketoheptane*) (OTTE and V. PECHMANN), 1889, A., 1138.
- Methyl sec.-butyl ketone** and its derivatives (WISLICENUS), 1883, A., 966.
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- Methyl chloroethyl ketone** (VLADESCO), 1891, A., 1183; 1892, A., 810.  
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- Methyl dichlorethyl ketone** (VLADESCO), 1891, A., 1183.
- Methyl chlorovinyl  $o$ -diketone**, dichloro- (ZINCKE and RABINOWITSCH), 1891, A., 690.
- Methyl dichlorovinyl ether** (DENARO), 1884, A., 1282.
- Methyl coumaroketone**. See *o*-Hydroxystyryl methyl ketone.
- Methyl dimethylthienyl ketoxime** (MESSINGER), 1885, A., 1205.
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- Methyl ethyl ketoxime**, action of hydrocyanic acid on (v. MILLER and PLÖCHL), 1892, A., 1196.  
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- Methyl hexyl ketoxime** (BÉHAL), 1887, A., 795; (SCHOLL), 1888, A., 443; (HANTZSCH), 1892, A., 427; (HOLLEMAN), 1892, A., 971.
- Methyl ketones**, aromatic, and their oxidation (CLAUS), 1886, A., 462.
- Methyl mercaptan** and its derivatives (OBERMEYER), 1888, A., 124.  
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- Methyl nonyl ketoxime** (SPIEGLER), 1884, A., 1115.
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- Methyl propyl and isopropyl diketones** (*diketohexanes*) (OTTE and v. PEGMANN), 1889, A., 1138.
- Methyl propyl ketoxime**, action of phosphoric chloride on (HANTZSCH), 1892, A., 427.
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- Methylacetoacetamide** (PETERS), 1890, A., 1097.
- Methylacetoacetanilide** (KNORR), 1888, A., 1111.
- Methylacetoacetic acid** (CERESOLE), 1883, A., 41.  
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- p*-**Methylacetotoluidide**, *m*-nitro- (NIEMENTOWSKI), 1887, A., 937.
- Methylacetylacetone** (COMBES), 1888, A., 128.  
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- Methylacetyl-acetonitrile and -carbinol** (VLADESCO), 1892, A., 810.
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- $\alpha$ -Methyl- $\beta$ -acetylpropionic acid**, distillation of (THORNE), 1885, A., 1200.
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- Methylacridine** (BERNTHSEN and BENDER), 1883, A., 1133; (FISCHER), 1883, A., 1134.  
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- Methylacridinechloral** ( *$\omega$ -trichloro- $\beta$ -hydroxypropylacridine*) (BERNTHSEN and MÜHLERT), 1887, A., 849.
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- Methylallyl- $\psi$ -thiocarbamide** (AVENARIUS), 1891, A., 549.
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- Methylamidobenzamide**, *o*-nitroso- (FINGER), 1888, A., 948.
- o*-Methylamidobenzene**, nitroso- (MEYER), 1886, A., 63.
- p*-Methyl-*o*-amidobenzylamidoxime** (WEISE), 1890, A., 47.
- 2-Methylamidobenzmethylamide**, 5-nitro- (THIEME), 1891, A., 917.
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- Methylamidobenzoic acids**, chloro- (LA COSTE and BODEWIG), 1885, A., 793.
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- Methylamidocarbimidocyanamidobenzoyl** (GRIESS), 1885, A., 1227.
- $\beta$ -Methylamidocrotonanilide** (KNORR and TAUFKIRCH), 1892, A., 708; (BRÜHL), 1892, A., 730, 1106; (LEDERER), 1892, A., 965.
- Methyl-mono- and -di-amidocyanidines**, *diperechloro-* (WEDDIGE), 1886, A., 323, 324.
- Methylamido-*p*-diketohexene**, *penta-chloro-* (ANGELI), 1892, A., 449.
- Methyl-*p*-amidodiphenylmethane** (MANNS), 1889, A., 261.
- Methylamidoformic chloride** (GATTERMANN and SCHMIDT), 1887, A., 358.
- Methylamido- $\alpha$ -hexoic acid**, and its derivatives (DUVILLIER), 1884, A., 664.
- Methylamido- $\alpha$ -hexoic cyamidine** (DUVILLIER), 1883, A., 1153.
- Methylamidohydroxybutyric acid** (FIELINSKY), 1885, A., 752.
- Methylamidomethoxycyanuric chloride** (v. HOFMANN), 1886, A., 40.
- Methylamidomethylnitramidobenzene**, 2:4:6-, *trinitro-* (VAN ROMBURGH), 1889, A., 1154.
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- Methylamidomethylthiazole** (HANTZSCH and WEBER), 1888, A., 257.
- Methyl- $\beta$ -amidonaphthylhydroquinoline** (REED), 1887, A., 682.
- Methylamidoperezone** (MYLIUS), 1885, A., 778.
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- $\alpha\beta$ -Methyl-*m*-amidophenylpropionic acid** (v. MILLER and ROHDE), 1890, A., 1140.
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- Methylamidosuccinamic acid** (KÖRNER and MENOZZI), 1890, A., 871.
- $\beta$ -Methyl- $\mu$ -amidothiazole** (HUBACHER), 1891, A., 222.
- $\alpha$ -Methylamidovaleric acid** and its derivatives (MENOZZI and BELLONI), 1887, A., 797.
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- Methylamylheptenylcarbinol** and its acetate [C<sub>14</sub>H<sub>28</sub>O] (PERKIN), 1883, T., 56, 76.

- Methylisoamylquinol** (FIALA), 1886, A., 454.
- Methylanhydroacetonebenzil** (JAPP and BURTON), 1887, T., 431; P., 32.
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- Methylanilalloxan** (PELLIZZARI), 1888, A., 143, 682.
- Methylanilidoacetamide** and its hydrochloride (SILBERSTEIN), 1885, A., 160.
- Methylanilidoacetic acid**, hydrochloride of (SILBERSTEIN), 1885, A., 160.
- Methylanilidoazotribromobenzene** (SILBERSTEIN), 1883, A., 663.
- Methylanilidocarbamidophenol** (KALCKHOFF), 1883, A., 1110.
- Methylanilidodimethylpyrrolidine** (KNORR), 1887, A., 276.
- Methylanilidoethylphthalimide** (NEWMAN), 1891, A., 1208.
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- Methylaniline**, *p*-bromo-, action of diazotised *m*- and *p*-nitranilines on (MELDOLA and STREATFEILD), 1889, T., 425, 418; P., 98.  
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- Methylaniline**, *p*-nitro-, action of diazotised *p*-bromaniline on (MELDOLA and STREATFEILD), 1889, T., 419; P., 98.  
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- Methylanilines**, analysis of (GIRAUD), 1890, A., 309; (REVERDIN and DE LA HARPE), 1890, A., 430.  
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- Methylaniline-fumaride** and **-succinide** (PIUTTI), 1886, A., 792.
- Methyl-*n*- and -*iso*-anisaldoximes** (GOLDSCHMIDT), 1890, A., 1261.
- Methyl-*o*-anisidine** (BEST), 1890, A., 607.  
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- $\alpha$ -Methylanthracene** [Me=1] (BIRUKOFF), 1887, A., 965.
- $\beta$ -Methylanthracene** (ELBS), 1890, A., 511.
- Methylanthracenes**, conversion of cinname derivatives of aromatic hydrocarbons into (KRAEMER, SPILKER and EBERHARDT), 1891, A., 207.
- Methylanthragallols** and their derivatives (CAHN), 1887, A., 57.
- p*-Methylanthranil-amidoanilide**, **-anilide** and **-imide** (PANAOTVIĆ), 1886, A., 361.
- Methylanthranol**, **amido-** (ROEMER; ROEMER and LINK), 1883, A., 1137.  
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- $\alpha$ -Methylanthraquinone** (BIRUKOFF), 1887, A., 965.  
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- $\beta$ -Methylantraquinone** (ELBS), 1886, A., 557; 1890, A., 511.  
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- Methylaspartic acid and dimethylamide** (KÖRNER and MENOZZI), 1890, A., 871, 870.
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- Methylazobenzene**, *tetranitro-* (MERTENS), 1886, A., 1022.
- Methylazophenine** (REICHOLD), 1890, A., 610.
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- Methylbenzamide**, *o*-chloro- (GABRIEL), 1887, A., 1038.  
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- p*-Methylbenzamide**, *o*-nitro-. See *p*-Toluamide, 3-nitro-.
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- m*-Methylbenzhydrazoin** (CORNELIUS and HOMOLKA), 1886, A., 1026.
- o*-Methylbenzidine** (HIRSCH), 1891, A., 210.
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- p*-Methylbenzonitrile**, *o*-nitro-. See *p*-Tolunitrile, 3-nitro-.
- Methylbenzophenone**. See Phenyl tolyl ketone.
- o*-Methylbenzylamine** and its salts (STRASSMANN), 1888, A., 474; (BAMBERGER and MÜLLER), 1888, A., 950.
- m*-Methylbenzylamine** (BRÜMME), 1888, A., 1295.
- p*-Methylbenzylamine** (BAMBERGER and LODTER), 1887, A., 719; (ZAUNSCHIRM), 1888, A., 1077; (HINSBERG), 1892, A., 65.
- Methylbenzylhydroamarine** (CLAUS), 1883, A., 203.
- Methylbenzylidene**, *dithio-* (BONGARTZ), 1888, A., 479.
- Methylbenzylidenic chloride**, conversion of, into triphenylbenzene (BÉHAL), 1889, A., 998.
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- Methylbismuthine dibromide**, *dichloride* and *diiodide* (MARQUARDT), 1887, A., 802.  
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- Methylisobutylcarbinol** (*hexylic alcohol*) (KUWSCHINOFF), 1888, A., 125.
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- Methylisobutylphenyldimethylamine** (*dimethyl-o-toluisobutylamine*) (EFFRONT), 1885, A., 153.
- Methylisobutylquinol** (FIALA), 1884, A., 1139.
- $\beta$ -Methylisobutylthiocarbamide** (HECHT), 1892, A., 702.
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- Methylcarbamide, nitroso-** (v. BRÜNING), 1888, A., 936.
- Methylcarbamido-**. See Methyluramido-.
- Methylcarbазacridine** (BIZZARRI), 1892, A., 343.
- Methylcarbodinicotinic acid.** See Picolinetricarboxylic acid.
- Methylcarbophenyllutidylumdehydride** (HANTZSCH), 1885, A., 398.
- Methylcarbostyryl, amido-, and nitro-** (FEER and KOENIGS), 1885, A., 1235.
- 1-Methylcarbostyryl** (*o-tolucarbostyryl*), **3'-4'-dichloro-** (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- 3-Methylcarbostyryl** (*p-tolucarbostyryl*), **3':4'-dichloro-**, and **3':4'-dichloro-nitro-** (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- 4'-Methylcarbostyryl, and derivatives** (KNORR), 1884, A., 334, 1198; 1887, A., 159; (ANON.), 1884, A., 757; (FISCHER and WITTMACK), 1884, A., 1052.
- reduction of (KNORR and KLOTZ), 1887, A., 278.
- nitroso- (FISCHER and WITTMACK), 1884, A., 1052.
- Methyl- $\psi$ -carbostyryl and its derivatives** (FRIEDLÄNDER and MÜLLER), 1887, A., 977.
- Methylcarboxyphenylacetic acid** (BÉHAL and AUGER), 1890, A., 389.
- Methylcarvoxime** (GOLDSCHMIDT and ZÜRRER), 1885, A., 1058.
- Methylchlorallylcarbinol** (GARZAROLLI-THURNLACKH), 1884, A., 1118.
- 2'-Methyltrichlorethylidenequinoline** (EINHORN), 1886, A., 264.
- Methyltrichlorobromazimidobenzene** (ZINCKE and ARZBERGER), 1889, A., 502.
- Methylchloroform.** See triChloroethane.
- Methylchrysoidine** (NÖLTING and STRICKER), 1886, A., 544.
- Methylapocinenic acid** (COMSTOCK and KOENIGS), 1885, A., 1249.
- Methylapocinenine and its hydrochloride** (COMSTOCK and KOENIGS), 1885, A., 1248.
- Methylcinchonamine** (HESSE), 1885, A., 66.
- 1'-Methylcinchoninic acid** (v. MILLER), 1891, A., 1097.
- 3'-Methylcinchoninic acid** (v. MILLER), 1890, A., 1325.
- Methylcinnamene.** See Tolylacetylene.
- $\alpha$ -Methylcinnamic acid.** See Phenylcrotonic acid.
- Methylcinnamic acids.** See Tolylacrylic acids.
- Methylcinnamoyldextroecgonine** (DECKERS and EINHORN), 1891, A., 475.
- Methylcinnolinecarboxylic acid** (WIDMAN), 1884, A., 1022.
- Methylcitraconic acid** (FITTIG and FRÄNKEL), 1890, A., 585; (BISCHOFF), 1891, A., 1221.
- Methylcocaine** (LIEBERMANN and GIESEL), 1890, A., 647, 803; (EINHORN and MARQUARDT), 1890, A., 913; (GIESEL), 1890, A., 1011.
- Methylcodeine and its derivatives** (GRIMAUX), 1883, A., 359; (HESSE), 1884, A., 614.
- Methylcolchicine** (JOHANNY and ZIESEL), 1889, A., 282.
- Methylconiine** (PASSON), 1891, A., 1118.
- Methylcopellidine.** See Tetramethylpiperidine.
- Methylcoumaraldehyde** (*methoxycinnamaldehyde*), nitro- (v. MILLER and KINKELIN), 1889, A., 990.
- Methyl-o-coumaric acid derivatives** (SCHNELL), 1884, A., 1165; 1887, A., 140.
- m*-amido- (SCHNELL), 1884, A., 1165; 1887, A., 140.
- 3-nitro-** (v. MILLER and KINKELIN), 1889, A., 989.
- 5-nitro-** (SCHNELL), 1884, A., 1165; 1887, A., 140.
- Methyl-m-coumaric acid** (*methoxycinnamic acid*) (TIEMANN and LUDWIG), 1883, A., 189.
- 6-nitro-** (EICHENGRÜN and EINHORN), 1890, A., 1127; 1891, A., 1101.

- Methyl-*p*-coumaric acid** (VALENTINI), 1885, A., 264; (MAGNANIMI), 1886, A., 467.  
*di*bromide and its derivatives (EIGEL), 1887, A., 1110.  
 3-nitro- (EINHORN and GRABFIELD), 1888, A., 478.
- $\beta$ -Methylcoumarilamide** (HANTZSCH), 1886, A., 1014.
- $\beta$ -Methylcoumarilic acid** (HANTZSCH), 1886, A., 707.
- $\alpha$ -Methylcoumarin, thio-** (ALDRINGEN), 1890, A., 624.
- $\beta$ -Methylcoumarin**, and its derivatives (V. PECHMANN and DUISBERG), 1884, A., 67.
- $\beta$ -Methylcoumarone** (HANTZSCH), 1886, A., 707.
- $\alpha$ -Methylcoumaroxime** (ALDRINGEN), 1890, A., 624; 1892, A., 330.  
 acetate (ALDRINGEN), 1890, A., 624.
- Methyl-*o*-coumarylic alcohol** (HARRIES), 1892, A., 169.
- $\beta$ -Methylcrotonanilide**, derivatives of (BRÜHL), 1892, A., 1106.
- Methylcrotonic acid**. See Tiglic acid.
- Methylcumazonic acid**, and its derivatives (WIDMAN), 1884, A., 303.
- Methyl- $\psi$ -cumidine** (V. HOFMANN), 1883, A., 324.
- Methylcuminaldoxime** (GOLDSCHMIDT), 1890, A., 1262.
- o*-Methylcyanacetophenone** (HALLER), 1889, A., 874.
- Methylcyanethine** (V. MEYER), 1883, A., 352.
- Methylcyanobutine hydriodide** (TRÖGER), 1888, A., 802.
- Methylcyanocamphor** (HALLER), 1891, A., 1499.
- Methyleytisine** (V. BUCHKA and MAGALHÃES), 1891, A., 750.
- $\beta$ -Methyldaphnetin** (V. PECHMANN and COHEN), 1885, A., 56.
- Methyldehydrohexone** (PERKIN), 1887, T., 723.
- Methyldehydrohexone-mono- and -dicarboxylic acids** (PERKIN), 1887, T., 715, 717, 744, 747.
- Methyldehydropentone and methyldehydropentonecarboxylic acid** (MARSHALL and PERKIN), 1890, P., 138; 1891, T., 878, 880.
- Methyldeoxybenzoin** (MEYER and OELKERS), 1888, A., 703.
- Methyldeoxybenzoins**, isomeric (STRASSMANN), 1889, A., 883.
- Methyldeoxybenzoincarboxylamide** (HEILMANN), 1890, A., 625; 1891, A., 201.
- m*-Methyldeoxybenzoin-*o*-carboxylic acid** (HEILMANN), 1890, A., 625.
- p*-Methyldeoxybenzoin-*o*-carboxylic acid** (RUHEMANN), 1892, A., 473.
- Methyldeoxystrychnine** (TAFEL), 1892, A., 1014.
- Methyl- $\omega$ -diacetylpentane** (KIPPING and PERKIN), 1889, T., 346; P., 79.
- Methyldiazoamidobenzene** (*diazobenzenemethylanilide*) (FRISWELL and GREEN), 1886, T., 748; (NÖLTING and BINDER), 1888, A., 273.
- Methyldibutyltetrahydrophenanthrolin** (SCHIFF and VANNI), 1890, A., 138.
- Methyldicarbocollidylumdehydride**, and the action of acids on (HANTZSCH), 1884, A., 1046.
- 3-Methyl-2':3'- or -4'-diethoxyquinoline**, chloro- (RÜGHEIMER and HOFFMANN), 1886, A., 160.
- Methyldiethylamine** (PASSON), 1891, A., 1118.
- Methyldiethylcarbinol** (REFORMATSKY), 1888, A., 244.
- 5-Methyl-2:4-diethyl-*m*-diazine**, 6-amido-. See Cyanethine.
- Methyldiethylmethane**. See *sec*-Hexane.
- Methyldiethylphenylenediamine** (WEINBERG), 1892, A., 1078.
- Methyldiethylphosphine** (COLLIE), 1888, T., 719.
- Methyldiethylphosphonium platinochloride** (CZIMATIS), 1883, A., 58.
- Methyldiethylsulphine platinochloride** (NASINI and SCALA), 1889, A., 115.
- Methyldiethylthiocarbamide** (NOAH), 1890, A., 1241.
- Methyldiethyluracil** (BEHREND; HOFFMANN), 1890, A., 31.
- Methyldiguanaide** and its compounds (REIBENSCHUH), 1883, A., 974.
- Methyldihydroanthracene**, amido-, and its derivatives (ROEMER), 1883, A., 1137.
- Methyldihydroindole**, 1'-, 2'-, and 3'-, and their derivatives (WENZING), 1887, A., 957.
- 2'-Methyldihydroindole**, actions of (BAMBERGER), 1891, A., 1097.  
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- 2'-Methyldihydronaphthindole** (SCHIEFER), 1887, A., 154.
- Methyldihydropentene methyl ketone** (PERKIN), 1889, P., 142; 1890, T., 232; (MARSHALL and PERKIN), 1889, P., 143; 1890, T., 242.  
 pinacone of (MARSHALL and PERKIN), 1889, P., 143; 1890, T., 248.

- Methyldihdropentene methyl ketoxime** (PERKIN), 1889, P., 141; 1890, T., 236.
- Methyldihdropentenedicarboxylic acid** (PERKIN), 1889, P., 142; 1890, T., 233.  
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- 1-Methyldihydropyrroline** (MAGNAGHI), 1885, A., 809.
- 2'-Methyldihydroquinazoline** (GABRIEL and JANSEN), 1890, A., 1443.
- 3'-Methyldihydroquinazoline, 2'-thio-** (SÖDERBAUM and WIDMAN), 1890, A., 178.
- Methyldiodamine** (RASCHIG), 1886, A., 44.
- Methyl-2':4'-diketodihydroquinazolines, 1'- and 3'-** (ABT), 1889, A., 610.
- $\beta$ -Methyl- $\alpha$ -diketohydrindene** (WISLICHENUS and KÖTZLE), 1889, A., 1068.
- $\alpha$ -Methyldinicotinic acid.** See 2-Methylpyridine-3:5-dicarboxylic acid.
- Methyldiosphenol** (SHIMOYAMA), 1888, A., 1205.
- 1'-Methyldioxindole** (COLMAN), 1888, P., 96; 1889, T., 8.
- $\nu$ -Methyl- $\psi$ -dioxythiazole** (ARAPIDES), 1889, A., 414.
- 1:3-Methyldiphenyl** (*phenyltoluene*) (ADAM), 1888, A., 959; (PERRIER), 1892, A., 851.
- Methyldiphenylcarbinyl.** See Phenyltolylcarbinyl.
- Methyldiphenylene ketone oxide** (PHOMINA), 1890, A., 901.  
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- Methyldiphenylformamidine** (COMSTOCK and WHEELER), 1892, A., 707.
- Methyldipropylamine** (PASSON), 1891, A., 1118.
- Methyldipropylcarbinol** (*octylic alcohol*) (GORTALOFF and SAYTZEFF), 1886, A., 437.
- Methyldiisopropylidihydroquinoline** (DENNSTEDT), 1889, A., 402.
- $\alpha$ -Methyldipyridyl and  $\alpha$ -methyldipyridyl- $\alpha$ -carboxylic acid** (HEUSER and STOEHR), 1891, A., 81; 1892, A., 75.
- Methylecgonine** (LIEBERMANN and GIESEL), 1890, A., 647; (EINHORN and MARQUARDT), 1890, A., 913.
- Methylemetonium hydroxide** (KUNZ), 1887, A., 981.
- Methylene, derivatives of** (HENRY), 1886, A., 43.  
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- Methylene-azure** (BERNTHSEN), 1886, A., 55.
- 4-Methylenebis-1-phenyl-3-methylpyrazolone** (PELLIZZARI), 1890, A., 646.
- Methylene-blue.** See Colouring matters.
- Methylenecarbamide** (v. HEMMELMAYR), 1891, A., 1340.
- Methylenecarbazole** (PULVERMACHER and LÖB), 1892, A., 1466.
- Methylene-cinchonic and -cinchonic acids** (CLAUS), 1892, A., 1489, 1490.
- Methylenediacetamide** (PULVERMACHER), 1892, A., 579.
- Methylenediamines,** substituted (EHRENBERG), 1887, A., 1026.
- Methylenedibenzamide** (PINNER), 1891, A., 469; (THIESING), 1892, A., 467; (PULVERMACHER), 1892, A., 580.
- Methylenedibenzylamine.** See Dibenzylmethylenediamine.
- Methylenedigallie acid** (CARO), 1892, A., 856.
- Methylene-3:4-dihydroxybenzylglycol** (TIEMANN), 1892, A., 47; (WAGNER), 1892, A., 310.
- Methylenedimalonic acid.** See Propanetetracarboxylic acid.
- Methylenedi- $\beta$ -naphthyl oxide** (CLAUS and RUPPEL), 1890, A., 511.
- Methylenediphenyldiamine** (PRATESI), 1885, A., 782.
- $\gamma$ -Methylenediphenylene** (HODGKINSON and MATTHEWS), 1883, T., 164.
- $\gamma$ -Methylenediphenylenesulphone.** See Diphenylenemethanesulphone.
- $\alpha$ -Methylenediphenylenesulphonic acid,** and the fusion of its potassium salt with potash (HODGKINSON and MATTHEWS), 1883, T., 166.
- $\gamma$ -Methylenediphenylenic sulphide** (GRAEBE and SCHULTESS), 1891, A., 1059.
- Methylenediphenylic oxide** (RICHTER), 1884, A., 324.
- Methylenedipthalimide** (NEUMANN), 1890, A., 890.
- Methylenedipiperidine** (ESCHWEILER), 1890, A., 955; (KRAUT, ESCHWEILER and GROSSMANN), 1890, A., 1092.
- Methylenedipyrogallol** (CARO), 1892, A., 856.
- Methylenediquinol.** See Methylenequinolylquinoline.
- Methylene-diresorcinol and -diresoreylic acid** (CARO), 1892, A., 856.
- Methylenedisalicylic acid** (CARO), 1892, A., 855.  
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- Methylenedisulphonic acid.** See Methanedisulphonic acid.
- Methylenedi-*o*- and -*p*-toluidines** (GRÜNHAGEN), 1890, A., 888.
- Methylenedi-*α*-toluoylamide** (THIESING), 1892, A., 467.
- Methylenedi-*o*-*p*-toluoylamides** (THIESING), 1892, A., 467.
- Methylene-ethylamine** (KOLOTOFF), 1886, A., 139.
- Methylene-group**, replacement of the hydrogen atoms in (WALLACH), 1891, A., 189.
- Methylenedi-*o*-, -*m*- and -*p*-nitranilines** (PULVERMACHER), 1892, A., 1450.
- Methylenedinitrobenzamide** (THIESING), 1892, A., 467.
- Methylenephthalathimidine** (MERTENS), 1887, A., 51.
- Methylenephthalide** (GABRIEL), 1885, A., 1228.  
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- Methylenephthalomethimidine** (GABRIEL), 1885, A., 1228.
- Methylenephthalphenimidine** (MERTENS), 1887, A., 52.
- Methylenequinolyloquinoline** (*methylenequinol*) hydrochloride (RHOUSOPOULOS), 1883, A., 1150.
- Methylene-red and -violet** (BERNTHSEN), 1886, A., 54.
- Methylenethiocarbamide** (v. HEMMELMAYR), 1891, A., 1339.
- Methylenedithiodiacetamide** (PULVERMACHER), 1892, A., 580.
- Methylene-white.** See Leucomethylene-blue under Colouring matters.
- Methylenic dibromide** (*dibromomethane*) (HENRY), 1884, A., 718.  
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- Methylenic dichloride** (*dichloromethane*), *mono-* and *diiodo-* (HÖLAND), 1887, A., 905.  
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- Methylenitan.** See Carbohydrates.
- Methylenyl-.** See Methylonyl-.
- Methylerythrohydroxyanthraquinone** (BIRUKOFF), 1887, A., 964.
- Methylethenyltolylenediamine** and its methiodide (NIEMENTOWSKI), 1887, A., 937, 938.
- Methylethylacetal** (RÜBENCAMP), 1885, A., 136.  
*trichloro-* (MAGNANIMI), 1887, A., 28.
- Methylethylacetates**, solubility of (SEDLITZKY), 1888, A., 250.
- Methylethylacetic acid**, zinc salt of (SCHMIDT), 1886, A., 867.
- Methylethylacetoximic acid** (SCHRAMM), 1883, A., 573.

- Methylethylacetylene** (*pentinene*), conversion of, into propylacetylene (FAWORSKY), 1888, A., 1168.
- $\beta$ -Methyl- $\alpha$ -ethylacetylpropionic acid**, distillation of (THORNE), 1885, A., 1200.
- $\alpha$ -Methyl- $\beta$ -ethylacraldehyde** (*hexenoic aldehyde*) (LIEBEN and ZEISEL), 1883, A., 570; (SOLONINA), 1888, A., 806.
- action of ammonia on (HOPPE), 1889, A., 120.
- action of sulphuric acid on (LUDWIG), 1892, A., 951.
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- oxidation of (LIEBEN and ZEISEL), 1883, A., 570.
- derivatives of (LIEBEN and ZEISEL), 1883, A., 570.
- Methylethylacrylic acid**. See Hexenoic acid.
- Methylethylamidoiso-oxazole**. See Methylethyliso-oxazole.
- Methylethylamine** (SKIAUP and WIEGMANN), 1889, A., 1018; (HINSBERG), 1892, A., 64.
- Methylethylaniline** and its derivatives (CLAUS and HOWITZ), 1884, A., 1005; (CLAUS and HIRZEL), 1887, A., 135.
- o*-Methylethylbenzene** (*ethyltoluene*), preparation of (CLAUS and MANN), 1885, A., 888.
- oxidation of (CLAUS and MANN), 1885, A., 888; (CLAUS and PIESZCZEK), 1887, A., 240.
- bromo- (CLAUS and PIESZCZEK), 1887, A., 240.
- mono*- and *di*-nitro- (CLAUS and PIESZCZEK), 1887, A., 240.
- p*-Methylethylbenzene** (ANSCHÜTZ and ROMIG), 1885, A., 769.
- m*-diamido- (ERRERA and BALDRACCO), 1892, A., 606.
- o*-Methylethylbenzene- $\beta$ -sulphonic acid** and chloride (CLAUS and PIESZCZEK), 1887, A., 240.
- Methylethylbromaniline** (CLAUS and HOWITZ), 1884, A., 1006.
- Methylethylbromoxazolone**. See Methylethylloxazolone.
- Methylethylcarbincarbinol** (LIEBEN and ZEISEL), 1886, A., 784.
- Methylethylcarboxylglutaric acid** (BISCHOFF), 1891, A., 829.
- 3-Methyl-2'-ethylcinchoninic acid** (v. MILLER), 1890, A., 1326.
- 1:3-Methylethyl-*m*-diazine** and *di*-chloronitro- (PINNER), 1889, A., 1007.
- Methylethyldicarboxylglutaric acids** (BISCHOFF), 1891, A., 829.
- 1-Methylethylidihydronaphthaquinone** (BÉHAL and AUGER), 1890, A., 388.
- Methylethylidihydropentene methyl ketone** (MARSHALL and PERKIN), 1890, T., 251.
- 4-Methyl-3-ethylidihydropyridine** ( *$\beta$ -dihydrocollidine*) (OECHSNER DE CONINCK), 1884, A., 1047.
- 1':3'-Methylethylidihydroquinoline** (FISCHER and STECHE), 1888, A., 299.
- 1-Methyl-2-ethylenetetrahydropyridine**. See Tropicidine.
- Methylethylene- $\psi$ -thiocarbamide** (GABRIEL), 1889, A., 849.
- Methylethylenetolylaminedimethyltolylammonium iodide** (HÜBNER, TÖLLE and ATHENSTÄDT), 1884, A., 1318.
- $\alpha$ s-Methylethylethylene**. See  $\gamma$ -Amylene.
- Methylethylglutaric acids**, *p*- and *meso*- (BISCHOFF), 1891, A., 829.
- 1:2-Methylethylglyoxaline** (*oxal-methylpropylene*), synthesis of (RADZISZEWSKI), 1883, A., 729.
- 2:1-Methylethylglyoxaline** (*oxalethyl-ethylene*) (RADZISZEWSKI), 1883, A., 729.
- (*oxalethylene*), properties of (WALLACH), 1883, A., 910.
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- Methylethylglyoxime** (SCHRAMM), 1883, A., 590.
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- Methylethylhexahydropyridine**. See Methylethylpiperidine.
- Methylethylhexamethylene**, formation of (KIPPING and PERKIN), 1889, P., 143.
- $\alpha$* -iodo- (KIPPING and PERKIN), 1890, T., 23.
- 2'-Methylethylideneindole** (FISCHER), 1888, A., 284.
- 3':2'-Methylethylindazine** and **3':1'-methylethylisindazine** (FISCHER and TAFEL), 1885, A., 541, 542.
- 2':1'-Methylethylindole** (FISCHER and STECHE), 1887, A., 976.
- 2':3'-Methylethylindole** (FISCHER), 1886, A., 805; 1887, A., 149.
- p*-Methyl-1'-ethylindole** (*ethyl-p-tolindole*) and ***p*-methyl-1'-ethylindole-2'-carboxylic acid** (HEGEL), 1886, A., 552.
- Methylethylketol** (v. PECHMANN and DAHL), 1890, A., 1235.
- Methylethylketole**. See 2':1'-Methylethylindole.

- Methylethylmaleic acid** (FITTIG and PARKER), 1892, A., 814.
- Methylethylmaleic anhydride** (BISCHOFF), 1891, A., 291; (MICHAEL and TISSOT), 1891, A., 1456.
- Methylethylmalic acid** (MICHAEL and TISSOT), 1891, A., 1455.
- Methylethylmalonic acid** (OTTO and BECKURTS), 1885, A., 754; (OTTO and RÖSSING), 1888, A., 45.  
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- Methylethylnitrouracil** (LEHMANN), 1890, A., 32.
- Methylethyliso-oxazole**, amido- (BURNS), 1891, A., 889; (HANRIOT), 1891, A., 1108; 1892, A., 79.
- Methylethylloxazolone**, bromo- (HANRIOT), 1891, A., 1108; 1892, A., 79.
- 1:2-Methylethylpentamethylene** (MARSHALL and PERKIN), 1889, P., 143; 1890, T., 250.
- Methylethyl-*p*-phenylenediamine** (*p*-amidoethyl-*o*-toluidine) (WEINBERG), 1892, A., 1078.
- 2-Methyl-4-ethylpiperidine** (*copellidine*) (SCHULTZ), 1888, A., 64.
- 2-Methyl-5-ethylpiperidine** (*aldehyde-collidine hexahydride*; *copellidine*), and its derivatives (DÜRKOPF), 1884, A., 1054; 1885, A., 817.
- 2-Methyl-6-ethylpiperidine** (SCHULTZ), 1888, A., 64.
- 4-Methyl-3-ethylpiperidine** (*β-collidine hexahydride*) (OECHSNER DE CONINCK), 1884, A., 1048.  
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- 2:5-Methylethylpiperidylalkine**. See 5-Hydroxyethyl-2-ethylpiperidine.
- ββ-Methylethylpropionic acid** (*hexoic acid*) (VAN ROMBURGH), 1887, A., 228; 1888, A., 447.
- Methylethylpropylisobutylammonium chloride**, optical isomerides of (LEBEL), 1891, A., 1002.
- Methylethylpropylcarbinol** (*tert-heptylic alcohol*) (SOKOLOFF), 1888, A., 1170.
- Methylethylisopropyl-*m*-diazine**, amido- (V. MEYER), 1889, A., 578.
- α-Methylethylpropylene** (*hexylene*) (WISLIGENUS), 1883, A., 967.
- Methylethylpropylic alcohol** (*hexylic alcohol*) from essence of chamomile (VAN ROMBURGH), 1887, A., 228.
- 2-Methyl-4-ethylpyridine** (*ethylpicoline*) (SCHULTZ), 1888, A., 64.
- 2-Methyl-5-ethylpyridine** (*aldehyde-collidine*) (DÜRKOPF), 1886, A., 257; (DÜRKOPF and SCHLAUGK), 1887, A., 737; 1888, A., 499.  
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- 2-Methyl-6-ethylpyridine** (*ethylpicoline*) (SCHULTZ), 1888, A., 64.
- 4-Methyl-3-ethylpyridine** (*β-collidine*) (HANTZSCH), 1883, A., 83; (OECHSNER DE CONINCK), 1883, A., 739.  
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- 6-Methyl-4-ethylpyridine** (*α-collidine*) (WEIDEL and PICK), 1885, A., 557.
- Methylethylpyridines** (*collidines*), preparation of (MAI and ASCHOFF), 1892, A., 725.
- Methylethylpyridylalkine**. See 2-Hydroxyethyl-5-ethylpyridine.
- 2-Methyl-1-ethylpyrrolidone-2-carbothioxyamide and -2-carboxylamide** (KÜHLING), 1890, A., 793.
- 2-Methyl-1-ethylpyrrolidone-2-carboxylic acid** (KÜHLING), 1890, A., 793.
- Methylethylquinol and its derivatives** (FIALA), 1884, A., 1138; 1886, A., 454; (NÖLTING and WERNER), 1891, A., 209.
- 3'-Methyl-2'-ethylquinoline and its salts** (DOEBNER and V. MILLER), 1884, A., 1376; (HARZ), 1886, A., 262; (ELIASBERG and FRIEDLÄNDER), 1892, A., 1107.
- 3'-Methyl-2'-ethylquinoline-1-carboxylic acid** (V. MILLER), 1890, A., 1326.
- 3-Methyl-2'-ethylquinoline-3'-carboxylic acid** (HARZ), 1886, A., 261.
- as-Methylethylsuccinic acid** (BISCHOFF), 1891, A., 829; (HELL), 1891, A., 1018.
- s-Methylethylsuccinic acid** (YOUNG), 1883, T., 180; (BISCHOFF and WALDEN), 1889, A., 959; (BISCHOFF and MINTZ), 1890, A., 743.
- Methylethylsuccinic acids** (BITSCHICHIN and ZELINSKY), 1890, A., 741.
- 2'-Methyl-1'-ethyltetrahydroquinoline** (MÖLLER), 1888, A., 298.
- α-Methyl-μ-ethylthiazole** (HUBACHER), 1891, A., 220.
- μ-Methyl-α-ethylthiazole** (HANTZSCH), 1890, A., 1238; (RUBLEFF), 1891, A., 223.



- m*-Methyl-*p*-ethyltoluene (CLAUS), 1892, A., 985.
- Methylethyltriphenyldithiobiuret (BILLETER and STROHL), 1888, A., 365.
- Methylethyluracil (BEHREND; HOFFMANN), 1890, A., 31.
- $\beta$ -Methyl- $\alpha$ -ethylvalerolactone (YOUNG), 1883, T., 172, 178; A., 456.
- Methyleugenol, glycol from (WAGNER), 1892, A., 310.
- Methylisoeugenol, glycol from (WAGNER), 1892, A., 311.
- dibromide (CIAMICIAN and SILBER), 1890, A., 967.
- nitrosite of (ANGELI), 1892, A., 447.
- Methylfenchylamine (WALLACH and GRIEFENKERL), 1892, A., 1239.
- Methylflavolinium hydroxide. See 2'-Phenyl-1':4'-dimethylquinolinium hydroxide.
- Methylformanilide (PINNER), 1883, A., 1090; (NORTON and LIVERMORE), 1887, A., 1038; (BARBIER and VIGNON), 1888, A., 689; (PICTET), 1890, A., 758.
- m*-nitro- (COMSTOCK and WHEELER), 1892, A., 706.
- Methylisoformanilide (COMSTOCK), 1890, A., 1258; (COMSTOCK and KLEEGER), 1890, A., 1414.
- m*-nitro- (COMSTOCK and WHEELER), 1892, A., 706.
- Methylformimide hydrochloride (PINNER), 1883, A., 1089.
- Methylisoformo- $\alpha$ -naphthalide (COMSTOCK and WHEELER), 1892, A., 705.
- Methylformo-*p*-toluidide (BAMBERGER and WULZ), 1891, A., 1202.
- Methylisoformo-*o*- and -*p*-toluidides (COMSTOCK and CLAPP), 1892, A., 707, 708.
- Methyl-fumaramic acid and -fumarimide (GIUSTINIANI), 1892, A., 821.
- Methylfurfuraldehyde (HILL), 1889, A., 695; (MAQUENNE), 1890, A., 33.
- Methylfurfurancarboxylic acid. See Methronic acid.
- Methylfurfurine (BIELER and TOLLENS), 1890, A., 1105.
- $\alpha$ -Methylglutaric acid (*butanedicarboxylic acid*) (KILIANI), 1883, A., 962.
- thermochemistry of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097.
- $\beta$ -Methylglutaric acid (*butanedicarboxylic acid*; *ethylidenediacetic acid*) (KOMNENOS), 1884, A., 422; (AUWERS, KÖBNER and v. MEYENBURG), 1892, A., 41.
- $\beta$ -Methylglutaric acid (*butanedicarboxylic acid*; *ethylidenediacetic acid*), dibromo- (AUWERS and BERNHARDI), 1891, A., 1191.
- $\alpha$ -Methylglyceric acid and its salts (MELIKOFF), 1885, A., 651.
- $\beta$ -Methylisoglyceric acid (MELIKOFF and PETRENKO-KRITSCHENKO), 1892, A., 296.
- $\beta$ -Methylglycidamide, trichloro- (LEVY, WITTE and CURCHOD), 1890, A., 234.
- $\beta$ -Methylglycidic acid and its salts (*propyleneoxycarboxylic acid*) (MELIKOFF), 1884, A., 1301; 1885, A., 650.
- additive product of methylamine and (FIELINSKY), 1885, A., 752.
- $\beta$ -Methylisoglycidic acid (MELIKOFF and PETRENKO-KRITSCHENKO), 1892, A., 296.
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- Methylglycocine. See Sarcosine.
- Methylglyoxalbisphenylhydrazone (v. PECHMANN and WEHSARG), 1887, A., 1104; 1889, A., 47.
- Methylglyoxal- $\alpha\omega$ -hydrazoxime (v. PECHMANN and WEHSARG), 1889, A., 47.
- 1-Methylglyoxaline (*oxalmethyline*) (WALLACH), 1883, A., 50; (WOHL and MARCKWALD), 1889, A., 867.
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- action of ethylic chloracetate on (RUNG and BEHREND), 1892, A., 1493.
- mercaptan and methylic sulphide (WOHL and MARCKWALD), 1889, A., 866.
- 2-Methylglyoxaline (*glyoxalethyline*; *p-oxalmethyline*) (WALLACH), 1883, A., 50, 911; (RADZISZEWSKI), 1883, A., 308.
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- 2-Methylglyoxaline-4:5-dicarboxylic acid (MAQUENNE), 1890, A., 1439.
- Methylglyoxal- $\alpha\omega$ -methylphenylhydrazoxime (v. PECHMANN and WEHSARG), 1889, A., 48.
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- Methylglyoxime (SCHOLL), 1891, A., 287.
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- Methylsynglyoximecarboxylic acid** (HANTZSCH), 1892, A., 1176.
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- Methylguanecil** (CURATOLO), 1891, A., 539.
- Methylguvacine** (JAHNS), 1892, A., 740.
- Methylheptonic acid and lactone** (FISCHER), 1890, A., 599.
- Methylheptose** (FISCHER), 1890, A., 599.
- Methylhesperidin** (WILL), 1885, A., 906.
- Methylhexadecylbenzenes** (*hexadecyltoluenes*), *o*-, *m*- and *p*- (KRAFFT and GÖTTIG), 1889, A., 129.
- p*-Methylhexadecylbenzene**, amido- (KRAFFT and GÖTTIG), 1889, A., 130.
- p*-Methylhexadecylbenzenesulphonic acid**, sodium salt of (KRAFFT and GÖTTIG), 1889, A., 130.
- p*-Methylhexadecylphenetol** and **methylhexadecylphenol** (KRAFFT and GÖTTIG), 1889, A., 130.
- $\alpha$ -Methylhexahydroanthracene** (GRAEBE and JUILLARD), 1888, A., 156.
- 1-Methylhexahydronicotinic acid** (JAHNS), 1892, A., 740.
- Methylhexamethylene methyl ketone** (FREER and PERKIN), 1888, T., 213.
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- o*-Methylhexamethylenemethylcarbinol** (KIPPING and PERKIN), 1889, P., 144.
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- Methylhexylcarbinyl cyanide** (FREUND and SCHÖNFELD), 1892, A., 132.
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- $\beta$ -Methylhexylethylene** (FREUND and SCHÖNFELD), 1892, A., 133.
- 1:2-Methylhexylglyoxaline** (*oxal-methyl-manthyl-line*) (KARCY), 1887, A., 911.
- Methylhexylhydroxypyrotartaric acids**  $\alpha$ - and  $\beta$ -, salts of (FITTIG and FEIST), 1890, A., 593; (FITTIG and RIECHELMANN), 1890, A., 593, 594.
- Methylhexylparaconic acids**,  $\alpha$ - and  $\beta$ - (FITTIG and RIECHELMANN), 1890, A., 593, 594.
- $\alpha$ -Methylhomo-*o*-phthalimide** and **-*o*-phthalonitrile** (GABRIEL), 1887, A., 1112.
- $\alpha$ -Methylhomopiperidic acid** (ASCHAN), 1891, A., 1246.
- $\alpha$ -Methylhomoterephthalic acid** (ERRERA), 1891, A., 1021.
- Methylhydantoin** (*lactylcarbamide*) (FRANCHIMONT and KLOBBIE), 1889, A., 1143.
- nitro- (FRANCHIMONT and KLOBBIE), 1888, A., 1180; 1889, A., 125, 1143.
- $\gamma$ -Methylhydantoin** (GUARESCHI), 1892, A., 828.
- Methylhydrastallylamide and -hydrastisoamylamide** (FREUND and HEIM), 1891, A., 92, 93.
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- Methylhydrasteine** (FREUND and ROSENBERG), 1890, A., 533.
- Methylhydrastine** (FREUND and ROSENBERG), 1890, A., 532; (SCHMIDT), 1890, A., 1167.
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- Methylhydrasto-methyl- and -ethylamides** (FREUND and HEIM), 1891, A., 93.
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- Methylhydrazidobenzenesulphonic acid** (PFÜLF), 1887, A., 934.
- Methylhydrazine** (v. BRÜNING), 1888, A., 936; 1890, A., 23.
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- Methylhydrazomethylenecarboxylic acid**, ammonium salt of (CURTIUS and LANG), 1892, A., 452.
- $\gamma$ -Methylhydrindene- $\beta$ -carboxylic acid** (ROSER), 1887, A., 836; 1888, A., 1303.
- o*-Methylhydrindone** and its phenylhydrazone (YOUNG), 1892, A., 1221.
- Methylhydrindones**, *m*- and *p*- (v. MILLER and ROHDE), 1890, A., 1140.
- $\beta$ -Methylhydrindone** and its phenylhydrazone (v. MILLER and ROHDE), 1890, A., 1139.
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- Methylhydroacridine** (BERNTHSEN and BENDER), 1883, A., 1134.
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- $p$ -Methylhydrocinnamic acid** (KRÖBER), 1890, A., 969; (v. MILLER and ROHDE), 1890, A., 1140.
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- Methylhydrocotoin** (CIAMICIAN and SILBER), 1891, A., 578.  
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- Methylhydro- $m$ -coumaric acid** (TIEMANN and LUDWIG), 1883, A., 189.
- Methylhydro- $p$ -coumaric acid**, dinitro- (STOEHR), 1884, A., 1350.
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- amidoformate**, action of nitrous acid on (KLOBBIE), 1891, A., 292.
- $\alpha$ -amidopropionate hydrochloride** (CURTIUS and LANG), 1892, A., 453.
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- apionylglyoxylate** (GARELLI), 1892, A., 328.
- azimethylenedicarboxylate** (CURTIUS and LANG), 1892, A., 452.
- azinsuccinate** (CURTIUS and KOCH), 1885, A., 886.
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- m*-bromacetamidocumate** (ABENIUS), 1890, A., 270.
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**2'-Methyl- $\beta$ -naphthaquinoline** (SEITZ), 1889, A., 525.  
 tetrahydro-derivatives of (BAMBERGER and MÜLLER), 1891, A., 1510.  
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**4'-Methyl- $\beta$ -naphthaquinoline** (REED), 1887, A., 682.  
**Methyl- $\beta$ -naphthaquinoneoxime** (GOLD-SCHMIDT and SCHMIDT), 1885, A., 1238.  
**Methylnaphthaquinoxaline, amido-** (WITT), 1886, T., 400.  
**2'-Methyl- $\alpha$ -naphthindole** (SCHLIEPER), 1887, A., 964.  
**3'-Methyl- $\alpha$ -naphthindole** (CLEVE), 1892, A., 1479.  
**2'-Methyl- $\beta$ -naphthindole** (SCHLIEPER), 1887, A., 154.  
**3'-Methyl- $\beta$ -naphthindole-2'-acetic acid** (STECHE), 1888, A., 285.  
**Methyl- $\alpha$ -naphthol,  $\beta$ -nitroso-** (GOLD-SCHMIDT and SCHMIDT), 1885, A., 1238.  
 $\beta$ -Methyl- $\alpha$ -naphthols [2:1- and 2:4-] (FITTIG), 1888, A., 252; (FITTIG and LIEBMANN), 1890, A., 775.  
**Methyl- $\alpha$ - and - $\beta$ -naphthols, trinitro-** (STAEDEL), 1883, A., 863.  
**Methylnarceine, and its salts** (CLAUS and RITZEFELD), 1885, A., 997.  
**Methylnitramine** (FRANCHIMONT and KLOBBIE), 1889, A., 492, 1144.  
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**Methyl- $o$ -nitro- $p$ -diazobenzene chloride, nitroso-** (*o*-nitro- $\omega$ -nitroso- $p$ -diazotoluene chloride) (MEYER), 1886, A., 63.  
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**Methylnitrosoacetonehydrazone** (v. PECHMANN and WEHSARG), 1889, A., 47.  
**Methylnonylacetylene** (KRAFFT and REUTER), 1892, A., 1164.  
**Methylnonylketonephenylhydrazone** (GRIMALDI), 1890, A., 1394.  
**2'-Methyloctohydro- $\beta$ -naphthaquinolines** (*ar*- and *ac*-octohydro- $\beta$ -naphthaquinolines) and their compounds (BAMBERGER and STRASSER), 1891, A., 1513.  
**2:5-Methyloctylthiophen** and its bromo-derivative (v. SCHWEINITZ), 1886, A., 536.

- Methylenanthaldoxime** (GOLDSCHMIDT and ZANOLI), 1892, A., 1436.
- Methyl-orange.** See Helianthin.
- Methyloxalacetic acid** (ARNOLD), 1888, A., 1179.
- Methyloxalacetophenylimide** (WISLICENUS and SATTLER), 1891, A., 903.
- Methyloxamic acid** (HANTZSCH), 1885, A., 398.
- Methyloxanilide** (NORTON and LIVERMORE), 1887, A., 1038.
- Methyliso-oxazoles,  $\alpha$ - and  $\gamma$ -** (CLAISEN), 1892, A., 1073.
- Methyloxazoline picrate** (GABRIEL), 1889, A., 1134.
- Methyliso-oxazolone** (HANTZSCH), 1891, A., 740.
- Methyloxindole, 3'-mono- and di-bromo-, and 3'-dichloro-** (COLMAN), 1888, P., 96; 1889, T., 3, 4, 7.
- p-Methyloxindole, nitroso-** (MEYER), 1884, A., 48.
- Methyloxyanthranol** (LIEBERMANN), 1888, A., 715.
- Methyloxymethylenetribromopyrogallol** (SEMMLER), 1892, A., 311.
- Methyloxyppyridine.** See Methylpyridone.
- Methyloxyquinazoline.** See Hydroxymethylquinazoline and Oxymethylquinazoline.
- Methyloxyquinizine.** See Phenylmethylpyrazolone.
- isoMethylpæonol** (TAHARA), 1892, A., 846.
- Methylparaconic acid** (FITTIG and FRÄNKEL), 1890, A., 584.
- dichloro-** (FITTIG and MILLER), 1890, A., 587.
- trichloro-** (FITTIG), 1888, A., 252; (FITTIG and MILLER), 1890, A., 586.
- Methylpentadecylacetylene** (*octodecine*) (KRAFFT and REUTER), 1892, A., 1163.
- Methylpentamethylene methyl ketone** (COLMAN and PERKIN), 1888, T., 198.
- Methylpentamethylene-mono- and -dicarboxylic acids** (COLMAN and PERKIN), 1888, T., 193, 198.
- Methylpentamethylenemethylcarbinol** (MARSHALL and PERKIN), 1889, P., 143; 1890, T., 245.
- Methylpentamethylenemethylcarbiny acetate and iodide** (MARSHALL and PERKIN), 1889, P., 143; 1890, T., 249.
- Methylpentamethylenic dibromide, and action of sodium on** (FREER and PERKIN), 1888, T., 205, 214.
- $\beta$ -Methyl-pentathienone and -pentathiophen** (KRECKELER), 1887, A., 239.
- Methylphenanthridines, 3- and 5-** (PICTET and ERLICH), 1892, A., 197.
- See also Phenylindole.
- Methylphenanthroline and its derivatives** (SKRAUP and FISCHER), 1885, A., 392; (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 729.
- Methylphenanthrolines, isomeric** (GERDEISSEN), 1889, A., 520.
- Methylphenazine and its salts** (VAN ROMBURGH), 1886, A., 546.
- Methylphenolsulphonic acid** (HAITINGER), 1883, A., 990.
- Methylphenomorpholine** (KNORR), 1889, A., 1220.
- Methyl- $\alpha$ -phenotetrazine** (HEMPEL), 1890, A., 613.
- Methyl- $\alpha$ -phenotriazine** (BISCHLER), 1890, A., 149.
- p-bromo-** (BISCHLER and BRODSKY), 1890, A., 152.
- Methylphenol.** See Cresol.
- Methylphenylamine.** See Methylaniline.
- Methylphenylpropionic acid.** See Tolypropionic acid.
- Methylphenyl-** See also Phenylmethyl-.
- $\alpha$ -Methylphthalic acid** [m.p. 152°] (NIEMENTOWSKI), 1892, A., 607.
- Methylphthalic acids** [m.ps. 144° and 124°], (YOUNG), 1892, A., 1221.
- Methylphthalic anhydride** (YOUNG), 1892, A., 1221.
- Methylphthalide, di- and tetra-chloro-** (ZINCKE and COOKSEY), 1890, A., 786.
- dichloronitro-** (ZINCKE and LATTEN), 1892, A., 1231.
- Methylphthalimide** [m.p. 182°] and its derivatives (GRAEBE and PICTET), 1884, A., 1019; 1889, A., 141.
- [m.p. 183°] (YOUNG), 1892, A., 1221.
- [m.p. 196°] (NIEMENTOWSKI), 1892, A., 607.
- Methylphthalimidine** (GRAEBE and PICTET), 1889, A., 141; (BARBIER), 1889, A., 253.
- Methylphthalo- $\psi$ -cumidamide** (FRÖHLICH), 1884, A., 1319.
- $\alpha$ -Methylphthalodiamide** (NIEMENTOWSKI), 1892, A., 607.
- Methylpiaselenole** (HINSBERG), 1889, A., 785.
- chloro-** (HINSBERG), 1890, A., 973.
- Methylpiazothiole** (HINSBERG), 1890, A., 161.
- Methylpicrazide** (V. BRÜNING), 1890, A., 23.
- Methyl- $\alpha$ -pipecoline** (1:2-dimethylpiperidine) (LADENBURG), 1883, A., 1154; (MERLING), 1891, A., 1508.



- Methylpiperidylalkine.** See Hydroxy-ethylmethylpiperidine.
- 2-Methylpiperidine** (LADENBURG), 1887, A., 740.
- 1-Methylpiperidine** (LADENBURG), 1883, A., 1154.
- 2-Methylpiperidine and its derivatives** (LADENBURG), 1884, A., 1054; 1887, A., 64, 283; (LADENBURG and ROTH), 1885, A. 557.
- synthesis of (LADENBURG), 1884, A., 1054.
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- $\alpha$ -methylpiperidylthiocarbamate (LADENBURG and ROTH), 1885, A., 557.
- 3-Methylpiperidine and its derivatives** (LADENBURG), 1884, A., 760; 1887, A., 64; (HESEKIEL), 1885, A., 812; 1886, A., 257; (STOEHR), 1888, A., 63; 1892, A., 629.
- bases (LELLMANN and BÜTTNER), 1890, A., 1003.
- 4-Methylpiperidine** (LADENBURG), 1888, A., 499.
- 3-Methylpiperidone** (ASCHAN), 1891, A., 1246.
- Methylpiperidyl-azone and -tetrazone derivatives** (KNORR), 1884, A., 468.
- Methylpropargylamine** (PAAL and HERMANN), 1890, A., 230.
- Methylisopropenylcarbinol**, (KONDAKOFF), 1886, A., 137; 1888, A., 125.
- Methylpropionylacetoneitrile** (v. MEYER), 1889, A., 114; (BOUVEAULT), 1891, A., 51.
- Methyl-*n*- and -*iso*-propylacetic acids.** See Hexoic acids.
- Methylisopropylacetone.** See Methyl amyl ketone.
- Methylpropylacetoximic acid.** See Methylpropylglyoxime.
- Methylpropylacetylene**, conversion of, into butylacetylene (FAWORSKY), 1888, A., 1169.
- Methylpropylacrylic acid** (REFORMATSKY), 1891, A., 169.
- Methylpropylallylcarbinol**, glycerol from (REFORMATSKY), 1890, A., 121.
- Methylpropylaniline and its derivatives** (CLAUS and HIRZEL), 1887, A., 134.
- Methylpropylbenzene.** See Cymene.
- 1-Methyl-3-propyl-2-benzoic acid** (*p*-propyl-*o*-toluic acid) (KREYSLER), 1885, A., 1055.
- 1-Methyl-3-propyl-4-benzoic acid** (*cymylcarborylic acid*) (CLAUS and CROPP), 1886, A., 463.
- Methylpropylcarbinol** (*sec-amyl alcohol*) (MARKOWNIKOFF), 1884, A., 1280.
- Methylpropylcarbinol** (*sec-amyl alcohol*), formation of (MARSHALL and PERKIN), 1891, T., 874.
- trichloro-*, and its derivatives (v. GARZAROLLI-THURNLACKH), 1884, A., 1118.
- o*-Methyl-*p*-propylcoumarin** (v. PECHMANN and WELSH), 1884, A., 1346.
- p*-Methylpropyldihydroxydiphenylic sulphide** (TASSINARI), 1887, A., 808.
- $\beta$ -Methylpropylethylenelactic acid** (REFORMATSKY), 1891, A., 169.
- Methylisopropylethylenic glycol** (FOSSEK), 1884, A., 833; (SWOBODA and FOSSEK), 1891, A., 31.
- Methylpropylethylenic oxide** (ELTEKOFF), 1883, A., 567.
- 3-Methylpropylglutaric acids** (BISCHOFF and TIGERSTEDT), 1890, A., 1103.
- 1:2-Methylpropylglyoxaline** (*oxal-methylbutylglyne*) (RIEGER), 1889, A., 119.
- 1:2-Methylisopropylglyoxaline** (*oxal-methylisobutylglyne*) (RIEGER), 1889, A., 120.
- 2:1-Methylpropylglyoxaline** (*oxal-propylethylglyne*), synthesis of (RADZISZEWSKI), 1883, A., 729.
- Methylpropylglyoxime** (SCHRAMM), 1884, A., 52.
- $\alpha$ -Methylpropyl- $\beta$ -hydroxybutyric acid**, decomposition of, by heat (JONES), 1885, A., 376.
- Methylisopropylmalonic acid** (VAN ROMBURGH), 1887, A., 232.
- Methylpropylphenanthrene.** See Retene.
- o*-Methyl-*p*-propylphenylmethyl ketone** (CLAUS and CROPP), 1886, A., 463.
- Methylpropylpinacolone** (SZYMANSKI), 1886, A., 784.
- Methylpropylpyridine** (3:5-*dimethyl-2-ethylpyridine*) (WAAGE), 1884, A., 172; (DÜRKOPF and GÖTTSCHE), 1890, A., 795, 1002.
- Methylpropylquinol** (FIALA), 1884, A., 1138.
- 5:2-Methylpropylquinone and its oxime**, 6-iodo- (KEHRMANN), 1889, A., 993.
- Methylpropylthiocarbamide** (HECHT), 1890, A., 476.
- Methylpropylthiocarbamilide** (BILLETTER and STROHL), 1888, A., 364.
- Methylprotocotoin** (CIAMICIAN and SILBER), 1892, A., 63.
- action of phosphoric chloride on (BAROLOTTI), 1892, A., 1314.
- Methylpurin**, derivatives of (FISCHER), 1884, A., 996.
- 3-Methylpyrazolone** (CURTIUS and JAY), 1889, A., 393.
- 2-Methylpyridine.** See  $\alpha$ -Picoline.

- 3-Methylpyridine. See  $\beta$ -Picoline.  
 4-Methylpyridine. See *p*-Picoline.  
 2-Methylpyridine-4-carboxylic acid ( *$\alpha$ -picoline-4-carboxylic acid*) (BÖTINGER), 1884, A., 758.  
 2-Methylpyridine-5-carboxylic acid (DÜRKOPF), 1885, A., 817.  
 4-Methylpyridine-2-carboxylic acid (BACHÉR), 1889, A., 163.  
 4-Methylpyridine-3-carboxylic acid (*homonicotinic acid*) (OECHSNER DE CONINCK), 1883, A., 739; 1885, A., 671.  
 3-Methylpyridinedicarboxylic acid [COOH=5:6 or 2:5] (DÜRKOPF and SCHLAUGK), 1888, A., 608; (DÜRKOPF and GÖTTSCHE), 1890, A., 1002.  
 2-Methylpyridine-3:5-dicarboxylic acid (*methylidinicotinic acid*) (WEBER), 1887, A., 1117.  
 2-Methylpyridine-4:6-dicarboxylic acid (*uvitonic acid*) (ALTAR), 1887, A., 379.  
     formation of, from pyruvic acid (BÖTINGER), 1884, A., 759.  
 1-Methyl- $\alpha$ -pyridone (*oxymethylpyridine*) (v. FECHMANN and BALTZER), 1892, A., 209.  
 1-Methyl- $\gamma$ -pyridone and its derivatives (HÄTINGER and LIEBEN), 1885, A., 966.  
 1-Methyl-4-pyridone-6-carboxylic acid, 2:3:5-trichloro- (ZINCKE and FUCHS), 1892, A., 450.  
 Methylpyrocatechol (*homopyrocatechol*) (BÉHAL and DESVIGNES), 1892, A., 1312.  
     and its nitro-derivatives (COUSIN), 1892, A., 1443.  
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 1-Methylpyrrolidine (CIAMICIAN and MAGNAGHI), 1885, A., 1243.  
 2-Methylpyrrolidine (TAFEL), 1887, A., 463; (TAFEL and NEUGEBAUER), 1889, A., 1015.  
 3-Methylpyrrolidine (TAFEL), 1887, A., 463; (OLDACH), 1887, A., 735.  
 2-Methylpyrrolidone (TAFEL), 1887, A., 463; 1889, A., 961.  
 2-Methylpyrrolidone-2-carbonitrile (KÜHLING), 1889, A., 1212.  
 2-Methylpyrrolidone-2-carboxylamide (KÜHLING), 1890, A., 793.  
 1-Methylpyrroline (CIAMICIAN and DENNSTEDT), 1885, A., 378.  
     action of nascent hydrogen on (CIAMICIAN and MAGNAGHI), 1885, A., 809.  
 1-Methylpyrroline, *tetrabromo-* (DE VARDA), 1889, A., 57.  
 2-Methylpyrroline (DENNSTEDT and LEHNE), 1889, A., 1209.  
     action of acetic anhydride on (CIAMICIAN and SILBER), 1886, A., 719.  
     action of methyle iodide on (CIAMICIAN and ANDERLINI), 1889, A., 728.  
     action of phthalic anhydride on (DENNSTEDT and ZIMMERMANN), 1886, A., 1044.  
 3-Methylpyrroline (DENNSTEDT and LEHNE), 1889, A., 1209.  
     action of acetic anhydride on (CIAMICIAN and SILBER), 1886, A., 719; 1887, A., 843.  
     action of phthalic anhydride on (DENNSTEDT and ZIMMERMANN), 1886, A., 1044.  
 Methylpyrrolinebisazobenzene (FISCHER and HEPP), 1886, A., 1041.  
 1-Methylpyrrolineketonedicarboxylic acid (ZANETTI), 1890, A., 1431.  
 Methylpyrrol methyl ketone [b.p. 201°] ( *$\psi$ -acetylmethylpyrroline*) (CIAMICIAN and DENNSTEDT), 1885, A., 378.  
 Methylpyrrol methyl ketone [b.p. 240°] (CIAMICIAN and SILBER), 1886, A., 719.  
     3:4-dibromo- (CIAMICIAN and SILBER), 1888, A., 62.  
 2-Methylpyrrol styryl ketone (DENNSTEDT and LEHNE), 1889, A., 1209.  
 1-Methylpyrrolalloxan (CIAMICIAN and SILBER), 1886, A., 897.  
 Methylpyrrolcarbinol (DENNSTEDT and ZIMMERMANN), 1886, A., 1042.  
 1-Methylpyrrolglyoxylic acid (DE VARDA), 1889, A., 57.  
     constitution of, and its *tribromo-* derivative (DE VARDA), 1890, A., 389, 390.  
 Methylquercetin (HERZIG), 1888, A., 1309.  
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 4'-Methylquinaldone. See 4'-Oxy-1':2'-dimethylquinoline.  
 2'-Methylquinoxaline (BISCHLER), 1891, A., 745.  
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 1-Methylquinoline (*-o-toluquinoline*), derivatives of (HERZFELD), 1884, A., 1198, 1199.  
 4-amido- [m.p. 143°] (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.

- 1-Methylquinoline** (*o-toluquinoline*), 3-bromo-, and its derivatives (ALT), 1889, A., 1214.  
 4-chloro-, and some of its salts (GATTERMANN and KAISER), 1886, A., 79.  
 2':3':4'-trichloro- (RÜGHEIMER and HOFFMANN), 1886, A., 160.  
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 2-nitro- (NÖLTING and TRAUTMANN), 1891, A., 327.  
 3-nitro- (LELLMANN and ZIEMSEN), 1891, A., 1257.  
 4-nitro- (NÖLTING and TRAUTMANN), 1892, A., 728.
- 2-Methylquinoline** (*m-toluquinoline*) (MAGNANINI), 1890, A., 1322.
- 3-Methylquinoline** (*p-toluquinoline*), derivatives of (HERZFELD), 1884, A., 1199.  
 amido- [m.p. 132°] (FOURNEAUX), 1885, A., 400.  
 1-amido- [m.p. 62°] (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.  
 4-amido- [m.p. 145°] (NÖLTING and TRAUTMANN), 1891, A., 325; 1892, A., 727.  
 2':3':4'-trichloro- (RÜGHEIMER and HOFFMANN), 1884, A., 1023.  
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 4-chloro-1-amido- (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.  
 1-nitro- (FOURNEAUX), 1885, A., 400; (NÖLTING and TRAUTMANN), 1891, A., 327; 1892, A., 728.  
 4-nitro- (NÖLTING and TRAUTMANN), 1891, A., 325, 327; 1892, A., 727.
- 1'-Methylquinoline**, 4'-bromo-4-nitro- (CLAUS and DECKER), 1889, A., 728.
- 2'-Methylquinoline** (*quinaldine*) (FISCHER and KUZEL), 1883, A., 588; (DOEBNER and v. MILLER), 1883, A., 602; (WALLACH and WÜSTEN), 1883, A., 1097; (ANON.), 1884, A., 756.  
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- 2'-Methylquinoline** (*quinaldine*), condensation of *m*-nitrobenzaldehyde with (WARTANIAN), 1891, A., 329.  
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- 2'-Methylquinoline**, 2-amido- (GERDEISEN), 1889, A., 520.  
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 3'-amido- and 3':4'-diamido- and their hydrochlorides (CONRAD and LIMPACH), 1888, A., 1111.  
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 4'-chloro- (CONRAD and LIMPACH), 1887, A., 680; (CONRAD and ECKHARDT), 1889, A., 520.  
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 1- and 2-nitro-, and their salts (DOEBNER and v. MILLER), 1884, A., 1373.  
 3':4'-nitramido- (CONRAD and LIMPACH), 1888, A., 1111.  
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- 3'-Methylquinoline**, preparation of (v. MILLER), 1891, A., 1095.
- 4'-Methylquinoline** (*lepidine*; *cincholepidine*) (KRAKAU), 1886, A., 162; (KNORR), 1887, A., 159.  
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- 4'-Methylquinoline (*lepidine*; *cincholepidine*), derivatives (HEYMANN and KOENIGS), 1888, A., 852.  
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- 4'-Methylquinoline, 2'-amido- (KLOTZ), 1888, A., 1113; (EPHRAIM), 1892, A., 1488.  
 3-amido- (BUSCH and KOENIGS), 1890, A., 1437.  
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 2'-chloro- (KNORR), 1887, A., 159.  
 3'-chloro- (MAGNANINI), 1887, A., 1113; 1890, A., 1322.  
 1-nitro- (BUSCH and KOENIGS), 1890, A., 1435.  
 2'-thio- (ROOS), 1888, A., 500.
- 2-Methylquinoline quinoneoximes (NÖLTING and TRAUTMANN), 1891, A., 326; 1892, A., 727, 728, 729.
- 2'-Methylisoquinoline (KRAUSS), 1891, A., 86.
- 4'-Methylisoquinoline (LE BLANC), 1888, A., 1114.  
 1':3'-dichloro- (GABRIEL), 1887, A., 1112.
- Methylquinolines (DOEBNER and v. MILLER), 1885, A., 1079.  
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- 2'-Methylquinoline-3-acrylic acid (v. MILLER and KINKELIN), 1886, A., 265.
- 2'-Methylquinolineacrylic acids (*quinaldineacrylic acids*) [m.ps. 246° and 184°] (ECKHARDT), 1889, A., 521.
- 2'-Methylquinoline-2-aldehyde (*quinaldinealdehyde*) (ECKHARDT), 1889, A., 522.
- 2'-Methylquinoline-3-aldehyde (v. MILLER and KINKELIN), 1886, A., 265.
- 1-Methylquinoline-4-carboxylic acid (LELLMANN and ALT), 1887, A., 502.
- 2'-Methylquinoline-1-, -2- and -3-carboxylic acids and their salts (DOEBNER and v. MILLER), 1884, A., 1200.
- 2'-Methylquinoline-3'-carboxylic acid and its ethylic salt (FRIEDLÄNDER and GÖHRING), 1883, A., 1149.
- 2'-Methylquinoline-4'-carboxylic acid (*aniluvitonic acid*) and its derivatives (BÖTTINGER), 1884, A., 320; (BEYER), 1886, A., 630.  
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- 2'-Methylquinoline-4'-carboxylic acid (*aniluvitonic acid*), oxidation of (BÖTTINGER), 1891, A., 1092.
- 3'-Methylquinoline-2'-carboxylic acid (DOEBNER and v. MILLER), 1884, A., 1376.
- 2'-Methylquinoline-3:4'-dicarboxylic acid (v. MILLER), 1890, A., 1325.
- 1-Methylquinoline-3-sulphonic acid (HERZFELD), 1884, A., 1198; (LELLMANN and ZIEMSEN), 1891, A., 1257.
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- 3-Methylquinoline-1-sulphonic acid (FISCHER and WITTMACK), 1884, A., 1052; (HERZFELD), 1884, A., 1199.
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- 2'-Methylquinoline-2-sulphonic acid, constitution of (RICHARD), 1891, A., 329.
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- Naphthalene-ring**, splitting of, by oxidation (HENRIQUES), 1888, A., 842.
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- Naphthalenesulphonamide**, 1:4'-nitro-, action of hydriodic acid on (EKBOM), 1890, A., 994.
- Naphthalenesulphonycyanamides**,  $\alpha$ - and  $\beta$ - (HEBENSTREIT), 1890, A., 501.
- Naphthalenesulphonic acid**,  $\alpha$ -cyano- ( *$\alpha$ -naphthonitrilesulphonic acid*) (DUTT), 1883, A., 1001; (ARMSTRONG and WILLIAMSON), 1887, P., 43.
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- Naphthalene-3'-sulphonic acid**, 2-bromo- (FORSLING), 1889, A., 894.  
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- Naphthalene-4-sulphonic acid**, 1-bromo-, constitution of (ARNELL), 1883, A., 596.  
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- 2-iodo- (ARMSTRONG and WYNNE), 1887, P., 23; 1889, P., 119; (HOULDING), 1889, P., 75.
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- Naphthalic acid** ( $C_{10}H_6(COOH)_2$ ). See Naphthalene-1:1'-dicarboxylic acid.
- $\alpha$ -Naphthalidene-aniline and -*o*- and -*p*-toluidines** (BRANDIS), 1889, A., 1199.
- Naphthalidenesulphonic acid**. See  $\alpha$ -Naphthylamine-4'-sulphonic acid.
- Naphthaloxazine** (KÜHLING), 1891, A., 1342.
- $\alpha$ -Naphthamide** (BAMBERGER and PHILIP), 1887, A., 496.
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- $\alpha$ -(?) Naphthanilide** (LEUCKART), 1890, A., 759.
- Naphthanilide**, bromo- (MILLER), 1885, A., 667.
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- $\beta$ -Naphthaphenanthrazine**, amido- (LOEWE), 1890, A., 1424.
- Naphthaphenanthrazinesulphonic acid**, sodium salt of (WITT), 1889, A., 274.
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- Naphthaphenone oxides**,  $\alpha$ - and  $\beta$ -, and their derivatives (GRAEBE and FEER), 1887, A., 152.
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- Naphthaquinaldine**. See 2'-Methylnaphthaquinoline.
- 1:2-Naphthaquinhydrone and nitro- (GROVES), 1884, T., 300.
- 1:2-Naphthaquinol (*hydronaphthaquinone*), 3-amido-, and its hydrochloride (GROVES), 1884, T., 300.
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- 1:4-Naphthaquinol, *dichloro*- (CLAUS), 1886, A., 714.
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- Naphthaquinols**, to distinguish certain (KORN), 1885, A., 392.
- $\alpha$ -Naphthaquinoline**, preparation of (BAMBERGER and STETTENHEIMER), 1891, A., 1258.
- $\beta$ -Naphthaquinoline**, formation of (LELLMANN and SCHMIDT), 1889, A., 289.
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- $\alpha$ -Naphthaquinolinequinone**, preparation of, from  $\alpha$ -naphthaquinoline and its properties (SKRAUP and COBENZL), 1883, A., 1014.
- $\beta$ -Naphthaquinolinesulphonic acid** (GENTIL), 1885, A., 561.
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- $\alpha$ -Naphthaquinone** (MELDOLA), 1883, T., 433; (MILLER), 1885, A., 667.
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- $\alpha$ -Naphthaquinone**, 1':4'-dibromo- (GUARESCHI), 1884, A., 842.
- tetrabromo- [m.p. 265°] (BLÜMLEIN), 1885, A., 163.
- 2:3:1':4'-tetrabromo- [m.p. 224°] (GUARESCHI), 1886, A., 807.
- 2:3-bromamido- and its imide (ZINCKE and GERLAND), 1887, A., 838.
- $\alpha$ -Naphthaquinone**, 2-chloro- (CLEVE), 1888, A., 596; (ZINCKE), 1888, A., 709.
- 1':4'-dichloro- [m.p. 173°] (GUARESCHI), 1886, A., 807.
- 2:3-dichloro-, dichloride (CLAUS), 1890, A., 786.
- 2:3'-dichloro- [m.p. 148°] (CLAUS and MUELLER), 1886, A., 247.
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- $\beta$ -Naphthaquinone** (GROVES), 1884, T., 291; (ZINCKE), 1887, A., 53; 1888, A., 158, 489.
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- $\beta$ -Naphthaquinone**, bromo- [m.p. 200°], (BRÖMME), 1888, A., 490.
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- 3:4-dibromo- (ZINCKE), 1887, A., 53.
- tetrabromo- [m.p. 164°] (FLESSA), 1884, A., 1186.
- 3-chloro- (ZINCKE), 1887, A., 53; (ZINCKE and KEGEL), 1889, A., 267.
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- 4:3-chloronitro- (ZINCKE and KEGEL), 1889, A., 266.
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- $\beta$ -Naphthaquinone**, 3-nitro-, action of chloride on (ZINCKE and LAT- TEN), 1892, A., 1229; (ZINCKE and SCHARFENBERG), 1892, A., 1232. derivatives of (ZAERTLING), 1890, A., 509.
- $\gamma$ -Naphthaquinone** (MELDOLA and HUGHES), 1890, T., 631; P., 88.
- Naphthaquinoneanilide**, chloro- (GUA- RESCHI), 1886, A., 808.
- $\beta$ -chloro-** (CLAUS and MUELLER), 1886, A., 247.
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- $\beta$ -Naphthaquinoneanilide**, nitro- (BRAUNS), 1884, A., 1038; (KORN), 1884, A., 1186.
- Naphthaquinonecarboxylic acid**, di- chloro- (EKSTRAND), 1889, A., 152.
- Naphthaquinonedichlorodiimide** (FRIEDLÄNDER and BOECKMANN), 1889, A., 614.
- $\alpha$ -Naphthaquinonedianil** (FISCHER and HEPP), 1890, A., 911.
- $\beta$ -Naphthaquinonedianilide** (MEL- DOLA), 1884, T., 157.
- $\alpha$ -Naphthaquinonedimethylanilinimide** (MÖHLAU), 1884, A., 595.
- $\beta$ -Naphthaquinone-di- $\alpha$ -naphthalide** (MELDOLA), 1884, T., 160.
- $\beta$ -Naphthaquinoneditoluidide** (MEL- DOLA), 1884, T., 159; (BROMME), 1888, A., 491.
- $\alpha$ -Naphthaquinone-ethylanilide** (ELS- BACH), 1883, A., 70.
- $\beta$ -Naphthaquinonehydrazone-benzoic and -sulphanilic acids**, action of diazobenzene chloride on (NÖLTING and GRANDMOUGIN), 1891, A., 1075.
- Naphthaquinoneimide**, amido-, and its bromine derivatives (KRONFELD), 1884, A., 1037.
- Naphthaquinoneoxime** (*nitrosonaph- thol*), action of hydrogen sulphites on (SPIEGEL), 1885, A., 987.
- 1:2-Naphthaquinoneoxime** and its de- rivatives (GOLDSCHMIDT), 1884, A., 735; (v. ILINSKI), 1885, A., 169; (HOFFMANN), 1885, A., 545; (GOLDSCHMIDT and SCHMID), 1885, A., 775.
- preparation of (HENRIQUES and v. ILINSKI), 1885, A., 801.
- action of alcoholic potash on (v. ILINSKI), 1884, A., 1035.
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- 1:2-Naphthaquinoneoxime**, action of hydroxylamine hydrochloride on (GOLDSCHMIDT), 1884, A., 735, 1137; (GOLDSCHMIDT and SCHMID), 1884, A., 1359.
- action of sulphurous anhydride on (SCHMIDT), 1890, A., 1305.
- 2:1-Naphthaquinoneoxime** (GOLD- SCHMIDT and SCHMID), 1885, A., 775.
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- action of alcoholic potash on (v. ILINSKI), 1884, A., 1035.
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- 1:4-Naphthaquinoneoxime** and its deriv- atives (GOLDSCHMIDT and SCHMID), 1884, A., 1327; (v. ILINSKI), 1885, A., 169; (HOFFMANN), 1885, A., 545.
- preparation of (HENRIQUES and v. ILINSKI), 1885, A., 801.
- action of amines and of bromine on (BRÖMME), 1888, A., 491, 490.
- 1:2-Naphthaquinonedioxime** (GOLD- SCHMIDT and SCHMID), 1884, A., 1359; (KEHRMANN and MES- SINGER), 1890, A., 1403.
- $\alpha$ -ethyl ether** (v. ILINSKI), 1886, A., 474.
- $\alpha$ - and  $\beta$ -methyl ethers** (KOREFF), 1886, A., 363.
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- 1:4-Naphthaquinonedioxime** (NIETZKI and GUITERMANN), 1888, A., 471.
- Naphthaquinonephenazine** (LEICES- TER), 1890, A., 1446.
- $\alpha$ -Naphthaquinonephenylhydrazide**. See Benzeneazo- $\alpha$ -naphthol under Azo-.



- β*-Naphthaquinonephenylhydrazide** (ZINCKE), 1883, A., 1135; (ZINCKE and BINDEWALD), 1885, A., 391.
- α*-Naphthaquinone-3'-sulphonic acid, 2:3-dichloro-** (CLAUS and VAN DER CLOET), 1888, A., 602.
- β*-Naphthaquinone-2', -3', and -4'-sulphonic acids** (WITT), 1892, A., 196.
- α*-Naphthaquinonetolazine** (LEICESTER), 1890, A., 1447.
- α*-Naphthaquinone-*o*- and -*p*-toluidides, *β*-chloro-** (CLAUS and MUELLER), 1886, A., 247.
- β*-Naphthaquinonetoluidide and action of nitrous acid on** (ZINCKE and BRAUNS), 1883, A., 209.
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- β*-Naphthaquinone-*o*- and -*p*-tolylhydrazides, and their derivatives** (ZINCKE and RATHGEN), 1887, A., 55.
- 1:2-Naphthaquinoxaline** (HINSBERG), 1890, A., 972.
- Naphtharesorcinol, azo-colours from** (v. KOSTANECKI), 1890, A., 260.
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- Naphthase, Laurent's** (WITT), 1887, A., 153.
- Naphthastyril and its derivatives** (EKSTRAND), 1886, A., 715; 1889, A., 52.
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- 4'-chloro-** (EKSTRAND), 1889, A., 153.
- Naphthastyrilmethylquinoxaline** (EKSTRAND), 1889, A., 53.
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- Naphthasultones** (ERDMANN), 1889, A., 157.
- Naphthasultonsulphonic acids, [ε-] and [δ-]** (BERNTSEN), 1890, A., 387; 1891, A., 215.
- αβ*-Naphthazine** (JAPP and BURTON), 1887, T., 99; (WITT), 1887, A., 153.
- preparation of** (FISCHER and HEPP), 1890, A., 614.
- s-ββ*-Naphthazine** (MATTHES), 1890, A., 993.
- Naphthenes** (MARKOWNIKOFF and OGLOBLIN), 1884, A., 1276.
- and their derivatives** (MARKOWNIKOFF), 1892, A., 1182, 1311.
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- β*-Naphthenylamidethoxime** (RICHTER), 1890, A., 62.
- αβ*-Naphthenylamidinedimethoxybenzenyl-*o*-carboxylic acid** (BISTRZYCKI and CYBULSKI), 1892, A., 1249.
- "*β*-Naphthenylamidoxime, dicyano-"** (NORDENSKIÖLD), 1890, A., 1121.
- Naphthenylamidoximes, *α*- and *β*-, and their derivatives** (EKSTRAND), 1887, A., 373; (RICHTER), 1887, A., 374; 1890, A., 62.
- β*-Naphthenylamidoxime-ethylidene** (RICHTER), 1890, A., 62.
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- α*-Naphtheurhodole** (KEHRMANN), 1890, A., 1266.
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- Naphthimidine** (PINNER), 1892, A., 983.
- α*-Naphthindole** (SCHLIEPER), 1887, A., 964.
- β*-Naphthindole** (SCHLIEPER), 1887, A., 153; (INCE), 1890, A., 57.
- derivatives of** (STECHE), 1888, A., 284.
- α*-Naphthindolecarboxylic acid** (SCHLIEPER), 1887, A., 963.
- β*-Naphthindolecarboxylic acid** (SCHLIEPER), 1887, A., 154.
- Naphthylamide** See Naphthylamine-sulphonamide.
- Naphthionic acid** See *α*-Naphthylamine-4-sulphonic acid.
- Naphthisatins, *α*- and *β*-** (HINSBERG), 1888, A., 373, 372.
- Naphthoic acid, trichloro-** (SCHERLER), 1892, A., 493.
- α*-Naphthoic acid** (*naphthalene-*α*-carboxylic acid*) (GRAEFF), 1884, A., 81.
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- 4':1'-bromonitro-** (EKSTRAND), 1886, A., 715.
- 1'-chloro-** (EKSTRAND), 1889, A., 52.
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- 4'-chloro-** (EKSTRAND), 1884, A., 1361; 1886, A., 156; 1889, A., 52.
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- α*-Naphthoic acid** (*naphthalene-*α*-carboxylic acid*), trichloro- [m.p. 163—164°] (EKSTRAND), 1889, A., 52.
- 4':1'-chloramido- (EKSTRAND), 1889, A., 153.
- 1'-chloronitro- and 1':4'-dichloronitro- (EKSTRAND), 1886, A., 156; 1889, A., 53.
- 1':4'-diimid- (EKSTRAND), 1889, A., 152.
- nitro- [m.p. 255°] (GRAEFF), 1884, A., 81.
- 1'-nitro-, and its derivatives (EKSTRAND), 1885, A., 548; 1886, A., 155; 1889, A., 52.
- 4'-nitro-, and its derivatives (GRAEFF), 1884, A., 81; (EKSTRAND), 1885, A., 548; 1886, A., 155.
- dinitro- [m.p. 215°] (EKSTRAND), 1886, A., 948.
- 1':4'-dinitro- (EKSTRAND), 1887, A., 373.
- 4:4'-dinitro-, and its salts (EKSTRAND), 1884, A., 1360; 1889, A., 152.
- trinitro- [m.p. 283°] (EKSTRAND), 1886, A., 715; 1889, A., 152. [m.ps. 236° and 293°] (EKSTRAND), 1886, A., 948.
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- β*-Naphthoic acid** (GRAEFF), 1884, A., 81; (SCHULZE), 1884, A., 1185.
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- diamido- [m.ps. 202° and 230°] (EKSTRAND), 1891, A., 78, 79.
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- chloro- [m.p. 263°] derivatives of (EKSTRAND), 1891, A., 932.
- 1-chloro- (WOLFFENSTEIN), 1888, A., 714.
- 1':4'-dichloro- (EKSTRAND), 1884, A., 1361.
- nitro- [m.ps. 226° and 248°] and their salts (EKSTRAND), 1884, A., 1360. [m.p. 279°] and its derivatives (EKSTRAND), 1885, A., 904; 1891, A., 932. [m.ps. 288° and 293°] and their derivatives (GRAEFF), 1884, A., 81; (EKSTRAND), 1885, A., 904; 1891, A., 78, 79.
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- β*-Naphthoic trichloride**, *α*-chloro- (WOLFFENSTEIN), 1888, A., 714; 1889, A., 615.
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- α*-Naphthol**, synthesis of (FITTIG and ERDMANN), 1883, A., 595; 1885, A., 545.
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- $\alpha$ -Naphthol**, *o*-azo-compounds of (NÖLT-ING and GRANDMOUGIN), 1891, A., 1074.
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- 3:4-dibromo-, constitution of (MELDOLA), 1884, T., 161.
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- $\beta$ -Naphthol**, crystalline form of (LEIVER), 1886, A., 543.
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- $\beta$ -Naphthol**, antiseptic properties of (MAXIMOVITCH), 1888, A., 621, 978.
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- $\beta$ -Naphthol**, 1:3:4-*trichloro-* (ZINCKE and KEGEL), 1889, A., 267.  
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- $\alpha$ -Naphthol-blue**. See Indophenol.
- Naphtholcamphorides**,  $\alpha$ - and  $\beta$ - (LÉGER), 1890, A., 1427.
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- $\alpha$ -Naphthol-2:4-(?)disulphonic acid** (CLAUS and MIELCKE), 1886, A., 716.
- $\alpha$ -Naphthol-3:1'-disulphonic acid** [ $\epsilon$ -] (BERNTHSEN), 1890, A., 387.  
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- $\alpha$ -Naphthol-2:2'- and -2:4-disulphonic acids** (BENDER), 1889, A., 718.
- $\beta$ -Naphtholdisulphonic acid**, action of tetrazodiphenyl on (SCHULTZ), 1884, A., 1036.
- $\beta$ -Naphthol-1:3'-disulphonic acid** [ $\beta$ - or G.-] (CLAUS and SCHMIDT), 1887, A., 269.  
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- $\beta$ -Naphthol-3:3'-disulphonic acid** [ $\alpha$ - or R.-], constitution of (PFITZINGER and DUISBERG), 1889, A., 515.  
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- $\alpha$ -Naphtholmaleinfluorescein** (BURCKHARDT), 1886, A., 51.
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- $\alpha$ -Naphtholsulphonamidodisulphonic acid** [ $\epsilon$ -] (BERNTHSEN), 1890, A., 387.
- $\alpha$ -Naphtholsulphonamidodisulphonic acid** [ $\delta$ -] (BERNTHSEN), 1891, A., 215.
- $\alpha$ -Naphtholsulphonic acid**, amido- (SCHMIDT), 1892, A., 476.
- $\alpha$ -Naphthol-1'-sulphonic acid** (ERDMANN), 1889, A., 157.  
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- $\alpha$ -Naphthol-2-sulphonic acid** (BENDER), 1889, A., 717; (CLEVE), 1892, A., 345.  
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- $\alpha$ -Naphthol-2-[?]sulphonic acid** and its salts (CLAUS and KNYRIM), 1886, A., 156.
- $\alpha$ -Naphthol-2'-sulphonic acid** (BENDER), 1889, A., 717.
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- $\alpha$ -Naphthol-4'-sulphonic acid** (ERDMANN), 1889, A., 157.  
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- $\beta$ -Naphtholsulphonic acid** (CLAUS and VOLZ), 1886, A., 246.  
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- $\beta$ -Naphthol-1'-sulphonic acid** [ $\alpha$ -]  
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- $\beta$ -Naphthol-2'-sulphonic acid** [ $\delta$ -, or F.-]  
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- $\beta$ -Naphthol-3'-sulphonic acid**, constitution of [ $\beta$ -] (ARMSTRONG and WYNNE), 1889, P., 53.  
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- $\beta$ -Naphthol-3:3':1'-trisulphonic acid**  
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- Naphthol-yellow**, S., constitution of (ARMSTRONG and WYNNE), 1890, P., 16.  
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- $\alpha$ -Naphthonitrile** ( *$\alpha$ -cyanonaphthalene*)  
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- $\beta$ -Naphthonitrile** ( *$\beta$ -cyanonaphthalene*),  
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- $\alpha$ -Naphthonitrilesulphonic acid** ( *$\alpha$ -cyanonaphthalenesulphonic acid*)  
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- Naphthoylnaphastyrils**,  $\alpha$ - and  $\beta$ - (EKSTRAND), 1889, A., 53.
- $\alpha$ -Naphthoyl- $\alpha$ -naphthenylamidoxime**  
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- $\beta$ -Naphththiamide** (BAMBERGER and BOECKMANN), 1887, A., 675.
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- $\alpha$ -Naphthyl glycidyl ether** (LINDEMANN), 1891, A., 1199.
- Naphthyl mercaptans**,  $\alpha$ - and  $\beta$ -, amido- (V. HOFMANN), 1887, A., 839.
- $\alpha$ -Naphthyl methyl ketone** and its derivatives (PAMPEL and SCHMIDT), 1887, A., 252; (CLAUS and FEIST), 1887, A., 271.
- $\beta$ -Naphthyl methyl ketone** (MÜLLER and V. PECHMANN), 1890, A., 52; (SCHWEITZER), 1891, A., 729.
- Naphthyl methyl ketones** (ROUX), 1888, A., 1306; (CLAUS and TERSTEEGEN), 1891, A., 214.

- Naphthyl methyl ketones**, action of phosphoric chloride on (LEROY), 1892, A., 495.
- $\alpha$ -Naphthyl phenyl ketone** and its derivatives (VINCENT and ROUX), 1884, A., 609; (ELBS), 1887, A., 943; (ROSPENDOWSKI), 1886, A., 625; (ELBS and STEINKE), 1886, A., 947; (KEGEL), 1888, A., 1307. boiling point of (SCHWELTZER), 1891, A., 1240. sodium derivative of (BECKMANN and PAUL), 1892, A., 170.
- $\beta$ -Naphthyl phenyl ketone** (VINCENT and ROUX), 1884, A., 609; (ROSPENDOWSKI), 1886, A., 625; (KEGEL), 1888, A., 1307.
- $\alpha$ -Naphthylacetamide** and  **$\alpha$ -naphthylacetonitrile** (BOESSNECK), 1883, A., 808.
- $\alpha$ -Naphthylacetic acid** (BOESSNECK), 1883, A., 808.
- $\beta$ -Naphthylacetic acid** (CLAUS and TERSTEEGEN), 1891, A., 215; (SCHWELTZER), 1891, A., 730.
- Naphthylacetylenes**,  $\alpha$ - and  $\beta$ -, and their derivatives (LEROY), 1892, A., 495, 496.
- $\alpha$ -Naphthylacrylic acid** ( *$\alpha$ -naphthacinnamic acid*) (BRANDIS), 1889, A., 1200.
- $\beta$ -Naphthylalkylamines**, reduction of (BAMBERGER and MÜLLER), 1889, A., 888.
- Naphthyl- $\beta$ -allylsemithiocarbazide** (AVENARIUS), 1891, A., 550.
- $\alpha$ -Naphthylamidoacetic acid** (*naphthylglycoccine*) (BISCHOFF and NASTVOGEL), 1889, A., 1015; (JOLLES), 1889, A., 1199; (FORTE), 1890, A., 900. calcium salt of (MAUTHNER and SUIDA), 1891, A., 39.
- $\beta$ -Naphthylamidoacetic acid** (JOLLES), 1889, A., 1199.
- Naphthylamidoacetic acids**, derivatives of (JOLLES), 1889, A., 1199; (BISCHOFF and HAUSDÖRFER), 1890, A., 1309; 1892, A., 1341.
- $\alpha$ -Naphthylamidoacetic naphthylamide** (BISCHOFF and HAUSDÖRFER), 1892, A., 1341.
- $\beta$ -Naphthylamidoacetic naphthylamine** (JOLLES), 1889, A., 1199.
- $\alpha$ -Naphthylamidoacetyl- $\alpha$ -naphthylamineacetic acid** (BISCHOFF and HAUSDÖRFER), 1892, A., 1341.
- Naphthylamidobenzoic acids**, *m*-amido- and *m*-nitro-, *p*- $\alpha$ - and  $\beta$ - (HEIDEN-SLEBEN), 1891, A., 307.
- Naphthylamidobiazolones**,  $\alpha$ - and  $\beta$ - (FREUND), 1892, A., 510, 508.
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- $\alpha$ -Naphthylamidocyanuric chloride** (FRIES), 1886, T., 314.
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- Naphthylamidoethylphthalimides**,  $\alpha$ - and  $\beta$ - (NEWMAN), 1891, A., 1208.
- Naphthylamidopropionic acids**,  $\alpha$ - and  $\beta$ - (BISCHOFF and HAUSDÖRFER), 1892, A., 1337.
- Naphthylamidosuccinic acids**,  $\alpha$ - and  $\beta$ - (HELL and POLIAKOFF), 1892, A., 860.
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- $\alpha$ -Naphthylamido- $\psi$ -thiobiazolone** (HELL and POLIAKOFF), 1892, A., 510.
- Naphthylamidothiobiazolones**,  $\alpha$ - and  $\beta$ - (FREUND), 1892, A., 511, 508.
- Naphthylamine** (*amidonaphthalene*), chlorotrinitro- [m.p. 252°] (CLEVE), 1890, A., 626.
- $\alpha$ -Naphthylamine**, manufacture of (WITT), 1887, A., 1048. refractive power of, at different temperatures (PERKIN), 1892, T., 303. action of picric chloride on (TURPIN), 1891, T., 716. citraconate (MORAWSKI and GLÄSER), 1888, A., 1096. citrate (HECHT), 1887, A., 154. hydrochloride, action of fuming sulphuric acid on (MAUZELIUS), 1888, A., 375. phenate (DYSON), 1883, T., 468. picrate (SMOLKA), 1886, A., 454. platinothiocyanate (GUARESCHI), 1892, A., 287.
- $\alpha$ -Naphthylamine**, 3'-bromo- (MELDOLA), 1885, T., 508; P., 72. 4-bromo- (GUARESCHI), 1884, A., 843; (MELDOLA), 1885, T., 508; P., 72. 4' (?) -bromo- (GUARESCHI), 1884, A., 843. 2:4-di-bromo- (MELDOLA), 1885, T., 510; P., 72. 4:2-bromonitro- (MELDOLA), 1885, T., 500; P., 71; (ARMSTRONG and ROSSITER), 1891, P., 186; (MELDOLA and DESCH), 1892, T., 765. 2-chloro- and 2:4-dichloro- (CLEVE), 1887, A., 495.



- $\alpha$ -Naphthylamine**, 1':4'-*dichloro-* (SCHWECHTEN), 1890, A., 620.  
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 **$\delta$ -Naphthylamine**, *diamido-*, hydrochlorides of (LOEWE), 1890, A., 1424.  
 1-bromo- (MELDOLA), 1885, T., 508; P., 72; (LELLMANN and SCHMIDT), 1888, A., 289.  
 4-bromo- (MELDOLA), 1885, T., 508; P., 72.  
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 1:3'-*di*bromo- (LAWSON), 1885, A., 1239; (ARMSTRONG and ROSSITER), 1891, P., 32; (CLAUS and PHILIPSON), 1891, A., 461.  
 1:4-*di*bromo- (MELDOLA), 1885, T., 497; P., 72; 1886, P., 173; (ARMSTRONG and ROSSITER), 1891, P., 186.  
*tribromo-* (CLAUS and PHILIPSON), 1891, A., 462.  
 **$\beta$ -Naphthylamine**, 4:1-bromiodo- (MELDOLA and DESCH), 1892, T., 767; P., 141.  
 1-chloro- (CLEVE), 1887, A., 961.  
 1':4'-*dichloro-* (CLAUS and PHILIPSON), 1891, A., 462.  
 1:4-chlorobromo- (MELDOLA and DESCH), 1892, T., 768.  
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 1'- and 4'-nitro- (FRIEDLÄNDER and SZYMANSKI), 1892, A., 1234, 1233.  
*dinitro-* [m.p. 238°—242°] (GRAEBE and DREWS), 1884, A., 1036.  
 1':4'-*dinitro-* (ONUFROWICZ), 1891, A., 321.  
*trinitro-* [m.p. 240—266°] (STAEDEL), 1883, A., 863.  
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**Naphthylamines**, primary and secondary (BENZ), 1883, A., 594.  
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**Naphthylaminealloxan** (PELLIZZARI), 1888, A., 142, 681.  
 **$\alpha$ -Naphthylaminebenzylidenesulphonic acid**. See  $\alpha$ -Naphthyl- $\omega$ -imidotuenesulphonic acid.  
 **$\alpha$ -Naphthylaminebisdiazobenzene** (KROHN), 1889, A., 152.  
**Naphthylaminebisazobenzenes**,  $\alpha$ - and  $\beta$ - (NIETZKI and DIESTERWEG), 1888, A., 1082, 1083.  
 **$\alpha$ -Naphthylamine-3:1'-disulphonic acid** [ $\epsilon$ ] (ARMSTRONG and WYNNE), 1890, P., 15; (BERNTHSEN), 1890, A., 386; (SCHULTZ), 1890, A., 388.  
 **$\alpha$ -Naphthylamine-4:1'-disulphonic acid** (*Sehöllkopf acid*) (BERNTHSEN), 1890, A., 386.  
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$\alpha$ -Naphthylamine-4:2'-disulphonic acid (*Dahl No. III.*), constitution of (ARMSTRONG and WYNNE), 1890, P., 16.

$\alpha$ -Naphthylamine-4:3'-disulphonic acid (*Dahl No. II.*), constitution of (ARMSTRONG and WYNNE), 1890, P., 125.

$\beta$ -Naphthylamine-1:3'-disulphonic acid (FORSLING), 1889, A., 276.

constitution of (ARMSTRONG and WYNNE), 1890, P., 130.

$\beta$ -Naphthylamine-1':3'-disulphonic acid (*Amido-G.-acid*), (LANDSHOFF), 1885, A., 312.

constitution of (ARMSTRONG and WYNNE), 1890, P., 12, 128.

$\beta$ -Naphthylamine-3:2'-disulphonic acid (*Cassella's  $\delta$ -acid*), constitution of (ARMSTRONG and WYNNE), 1890, P., 127.

$\beta$ -Naphthylamine-3:3'-disulphonic acid (*Amido-R.-acid*), constitution of (ARMSTRONG and WYNNE), 1890, P., 12.

$\beta$ -Naphthylamine-4:2'-disulphonic acid (*Andresen's acid*) (SCHULTZ), 1890, A., 388; (ARMSTRONG and WYNNE), 1891, A., 27.

$\alpha$ -Naphthylaminephthalein (VANNI), 1886, A., 68.

$\alpha$ -Naphthylamine-3'-sulphonamide (*naphthionamide*) (EKBOM), 1891, A., 573.

$\alpha$ -Naphthylamine-4-sulphonamide (CLEVE), 1890, A., 635.

$\alpha$ -Naphthylamine-4'-sulphonamide (EKBOM), 1890, A., 994.

Naphthylaminesulphonic acid, iodo- (OSTERMAYER), 1885, A., 673.

$\alpha$ -Naphthylaminesulphonic acid ( $\delta$ -*Hirsch acid*) (HIRSCH), 1888, A., 1200.

$\alpha$ -Naphthylamine-1'-sulphonic acid (ERDMANN), 1889, A., 156.

$\alpha$ -Naphthylamine-2-sulphonic acid (CLEVE), 1892, A., 345.

$\alpha$ -Naphthylamine-2'-sulphonic acid [ $\delta$ ] (CLEVE), 1889, A., 155.

2-chloro- (CLEVE), 1892, A., 1479.

$\alpha$ -Naphthylamine-3-sulphonic acid [ $\gamma$ ] (CLEVE), 1886, A., 1037; 1889, A., 154.

$\alpha$ -Naphthylamine-4-sulphonic acid (*naphthionic acid*) (WITT), 1886, A., 364; (ERDMANN), 1889, A., 156.

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$\alpha$ -Naphthylamine-4-sulphonic acid, 4'-nitro- (NIETZKI and ZÜBELEN), 1889, A., 514.

$\alpha$ -Naphthylamine-4'-sulphonic acid (*naphthalidenesulphonic acid*) (WITT), 1886, A., 554; (LANGE), 1888, A., 160; (ERDMANN), 1889, A., 156.

conversion of, into *dichloronaphthalene* (ERDMANN), 1888, A., 290.

$\beta$ -Naphthylamine-1'-sulphonic acid (*Badische-acid*) (FORSLING), 1886, A., 890; 1887, A., 962.

preparation of (ANON.), 1884, A., 238.

constitution of (ARMSTRONG and WYNNE), 1889, P., 50; (IMMERHEISER), 1889, A., 514; (FORSLING), 1889, A., 718.

$\beta$ -Naphthylamine-2'-sulphonic acid [ $\delta$ ], and its derivatives BAYER) and DUISBERG), 1887, A., 732; (WEINBERG), 1888, A., 160.

identity of the  $\delta$ - and F- acids (SCHULTZ), 1888, A., 290; (ERDMANN), 1888, A., 491.

1-chloro- (ARMSTRONG and WYNNE), 1889, P., 36, 48.

$\beta$ -Naphthylamine-3'-sulphonic acid (*Brønner's acid*) (LANDSHOFF), 1885, A., 312; (FORSLING), 1887, A., 375.

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1-chloro- (ARMSTRONG and WYNNE), 1889, P., 36, 48.

$\beta$ -Naphthylamine-4'-sulphonic acid (FORSLING), 1887, A., 963.

1-chloro- (ARMSTRONG and WYNNE), 1889, P., 36, 48.

$\beta$ -Naphthylaminesulphonic acids, properties of the four (GREEN), 1889, T., 36.

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the isomeric heteronuclear, the disulphonic acids obtained by sulphonating (ARMSTRONG and WYNNE), 1890, P., 128.

- $\beta$ -Naphthylamine-3:1':3'-trisulphonic acid** (LANDSHOFF), 1885, A., 312.
- $\alpha$ -Naphthylaspartic acid** (HELL and POLIAKOFF), 1892, A., 860.
- $\beta$ -Naphthylbenzoglucocycamine, and its hydrochloride** (GRIESS), 1883, A., 669.
- $\beta$ -Naphthylbenzylamine** (KOHLE), 1888, A., 50.
- $\alpha$ -Naphthylbenzylcarbamide** (KÜHN and RIESENFELD), 1892, A., 312.
- $\beta$ -Naphthylbenzylideneamine** (CLAISEN), 1887, A., 494.
- Naphthylbenzylthiocarbamides,  $\alpha$ - and  $\beta$ -** (DIXON), 1891, T., 558, 559.
- $\alpha$ - $\beta$ -Naphthylcarbamide** (KÜHN and LANDAU), 1890, A., 634.
- $\alpha$ -Naphthylcarbinol ( *$\alpha$ -naphthalbenzylalcohol*)** (BAMBERGER and LODTER), 1888, A., 375.
- $\beta$ -Naphthylcarbinol** (BAMBERGER and BOECKMANN), 1887, A., 675.
- Naphthylcarbinyllamine. See Naphthylmethylamine.**
- $\alpha$ -Naphthylcyanamide** (TIEMANN), 1889, A., 1165; (VOLTMER), 1891, A., 559.
- $\alpha$ -Naphthyl-diethylamine** (FRIEDLÄNDER and WELMANS), 1889, A., 151.
- $\beta$ -Naphthyl-diethylamine, hydrogenation of** (BAMBERGER and WILLIAMSON), 1889, A., 1000.
- $\alpha$ -Naphthyl-diethylaminecarboxylic acid** (FRIEDLÄNDER and WELMANS), 1889, A., 152.
- $\alpha$ -Naphthyl-dimethylamine and its derivatives** (FRIEDLÄNDER and WELMANS), 1889, A., 150.
- $\alpha$ -Naphthyl-dimethylaminecarboxylic acid** (FRIEDLÄNDER and WELMANS), 1889, A., 151.
- Naphthyl-dimethylaminesulphonic acid** (FRIEDLÄNDER and WELMANS), 1889, A., 151.
- Naphthyl-dimethylpropionic acid** (GUCCI and GRASSI-CRISTALDI), 1892, A., 871.
- Naphthyl-2:5-dimethylpyrrolines, 1: $\alpha$ - and 1: $\beta$ -** (KNORR), 1887, A., 275.
- 1- $\beta$ -Naphthyl-2:5-dimethylpyrroline-3:4-dicarboxylic acid** (KNORR), 1885, A., 555.
- 1: $\alpha$ -Naphthyl-2:5-dimethylpyrroline-3:4-dicarboxylic acid** (KNORR), 1887, A., 275.
- Naphthyl-diphenylamine** (HERZ), 1890, A., 1410.
- Naphthyl-diphenylamine-blue, constitution of** (HAUSDÖRFER), 1890, A., 1308.
- $\beta$ -Naphthyl-diphenylcarbamide** (KYM), 1890, A., 633.
- Naphthyl-2:5-diphenylpyrrolines, 1: $\alpha$ - and 1: $\beta$ -** (PAAL and BRAIKOFF), 1890, A., 263, 264.
- Naphthylene mercaptan** (EBERT and KLEINER), 1891, A., 460.
- "Naphthylenes"** (MARKOWNIKOFF and OGLOBLIN), 1884, A., 1276;.
- Naphthylene- $\alpha\beta$ -benzenyldiamine** (KOLL), 1891, A., 1239.
- Naphthylenediallylthiocarbamide** (LELLMANN), 1886, A., 625.
- 1:1'-Naphthylenediamine (*diamido-naphthalene*)** (HINSBERG), 1889, A., 717.
- 1:2-Naphthylenediamine** (LAWSON), 1885, A., 1238.
- action of formic acid on (FISCHER and WRESZINSKI), 1892, A., 1496.
- hydrogenation of (BAMBERGER and SCHIEFFELIN), 1889, A., 892.
- 1:3-Naphthylenediamine** (URBAN), 1887, A., 674.
- 1:4-Naphthylenediamine** (GRIESS), 1883, A., 183; (WITT), 1887, A., 1048.
- hydrogenation of (BAMBERGER and SCHIEFFELIN), 1889, A., 892.
- 2:1'-Naphthylenediamine** (FRIEDLÄNDER and SZYMANSKI), 1892, A., 1234.
- 2:2'-Naphthylenediamine, preparation of** (BAMBERGER and SCHIEFFELIN), 1889, A., 893.
- 2:4'-Naphthylenediamine** (FRIEDLÄNDER and SZYMANSKI), 1892, A., 1233.
- Naphthylenediamines, substituted** (ANNAHEIM), 1887, A., 839.
- 1:2-Naphthylenediamine-3:1'-disulphonic acid, derivatives of** (BERNTSEN), 1891, A., 216.
- 1:2-Naphthylenediamine-2'-, -3'- and -4'-sulphonic acids** (WITT), 1889, A., 274.
- $\alpha\beta$ -Naphthylenedimethoxyphthalamidone** (BISTRZYCKI and CYBULSKI), 1892, A., 1249.
- Naphthylenedinaaphthylsulphoxide** (EKSTRAND), 1885, A., 170.
- Naphthylenediphenyldithiocarbamide** (BAMBERGER and SCHIEFFELIN), 1889, A., 892.
- 1:2-Naphthylene-ethenylamidine and its salts** (PRAGER), 1885, A., 1239; (LELLMANN and REMY), 1886, A., 624.
- 4-bromo- and bromonitro- (PRAGER), 1885, A., 1239.
- $\beta\beta$ -Naphthylene-ethenyldiamine** (FISCHER and HEPP), 1887, A., 729.
- Naphthylene-ethylidiamine** (KOCK), 1888, A., 469.
- Naphthylene-ethylidiamine hydrochloride** (KOCK), 1888, A., 469; (BAMBERGER and GOLDSMIDT), 1891, A., 1239.



- 1:2-Naphthylene-methenylamidine and -methylmethenylamidine (FISCHER and WRESZINSKI), 1892, A., 1496.
- $\beta$ -Naphthylene-toluquinioxaline (HINSBERG), 1885, A., 909.
- amido- (WITT), 1886, T., 400.
- Naphthylenic dihydrosulphides and dithiocyanate (EBERT and KLEINER), 1891, A., 460; (BRAUN and EBERT), 1892, A., 1471.
- $\alpha$ -Naphthylethyldiphenyldiamine (BOESSNECK), 1883, A., 808.
- $\alpha$ -Naphthylethylamine (BAMBERGER and GOLDSCHMIDT), 1891, A., 1238.
- $\beta$ -nitroso- (HARDEN), 1890, A., 631.
- $p$ -nitroso- (KOCK), 1888, A., 469.
- $\beta$ -Naphthylethylamine (HENRIQUES), 1885, A., 168.
- $\alpha$ -nitroso- (FISCHER and HEPP), 1887, A., 1114; 1888, A., 461.
- $\alpha$ -Naphthylethylene (*naphthacinnamene*) (BRANDIS), 1889, A., 1200.
- chloro- (LEROY), 1892, A., 495.
- $\beta$ -Naphthylethylene, chloro- (LEROY), 1892, A., 495.
- $\alpha$ -Naphthylethylenediamine (NEWMAN), 1891, A., 1208.
- $\beta$ -Naphthylethylhydrazine (HAUFF), 1890, A., 61.
- $\beta$ -Naphthylethylidenhydrazine (SCHLIEPER), 1887, A., 153.
- Naphthylethylxanthic acids, sulpho- $\alpha$ - and - $\beta$ -, potassium salts of (LEUCKART), 1890, A., 606.
- Naphthylformamides,  $\alpha$ - and  $\beta$ - (TOBIAS), 1883, A., 326.
- Naphthylglycoccine. See Naphthyl-amidoacetic acid.
- $\beta$ -Naphthylglycollamide (SCHWEITZER), 1891, A., 729.
- $\alpha$ -Naphthylglycollic acid (*naphthoxyacetic acid*) (BOESSNECK), 1883, A., 808; (SPICA), 1887, A., 495; (BRANDIS), 1889, A., 1200; (SCHWEITZER), 1891, A., 730.
- $\beta$ -Naphthylglycollic acid (SPICA), 1887, A., 495; (CLAUS and TERSTEEGEN), 1891, A., 215; (SCHWEITZER), 1891, A., 729.
- $\alpha$ -Naphthylglycollic nitrile (BRANDIS), 1889, A., 1200.
- Naphthylglycuronic acids,  $\alpha$ - and  $\beta$ - (LESNIK and NENCKI), 1886, A., 823.
- 1- $\alpha$ -Naphthylglyoxaline and  $\mu$ -mercaptan and  $\mu$ -methylsulphide (MARCKWALD), 1892, A., 1331.
- $\alpha$ -Naphthylglyoxylamide (BOESSNECK), 1883, A., 595.
- $\alpha$ -Naphthylglyoxylic acid (*naphthoylformic acid*) (BOESSNECK), 1883, A., 595, 808; (CLAUS and FEIST), 1887, A., 271.
- $\beta$ -Naphthylglyoxylic acid (CLAUS and TERSTEEGEN), 1891, A., 214.
- $\alpha$ -Naphthylhydrazine (FISCHER), 1886, A., 554.
- indoles from (SCHLIEPER), 1887, A., 963.
- $\beta$ -Naphthylhydrazine (FISCHER), 1886, A., 555; (HAUFF), 1890, A., 61.
- naphthylthiocarbazinate (HAUFF), 1890, A., 61.
- $\beta$ -Naphthylhydrazinelevulinic acid (STECHE), 1888, A., 284.
- $\alpha$ -Naphthylhydrazinepyruvic acid (SCHLIEPER), 1887, A., 963.
- $\beta$ -Naphthylhydrazinepyruvic acid (SCHLIEPER), 1887, A., 153.
- $\alpha$ -Naphthylhydrazone, thionyl- (MICHAELIS and RUHL), 1892, A., 1324.
- $\beta$ -Naphthyl benzenesulphonate (TRAUBE), 1891, A., 569.
- benzoate and acetate,  $\alpha$ -nitro-, reduction of (BÖTTCHER), 1885, A., 659.
- benzoate and acetate,  $\alpha$ -nitro-, molecular transformations of (BÖTTCHER), 1883, A., 1113.
- Naphthyl benzylic oxides,  $\alpha$ - and  $\beta$ - (STAEDEL), 1883, A., 586.
- carbamates,  $\alpha$ - and  $\beta$ - (GATTERMANN), 1888, A., 575.
- carbonates,  $\alpha$ - and  $\beta$ - (LÖWENBERG), 1886, A., 789.
- $\beta$ -Naphthyl cinnamate, decomposition of, by heat (ANSCHÜTZ), 1885, T., 899; A., 1065.
- Naphthyl cyanurates,  $\alpha$ - and  $\beta$ - (OTTO), 1887, A., 1034.
- ethylic carbonate (BENDER), 1887, A., 37.
- $\alpha$ -oxalates,  $\alpha$ - and  $\beta$ - (STAUB and SMITH), 1884, T., 303, 304.
- phenylcarbamates,  $\alpha$ - and  $\beta$ - (SNAPE), 1885, T., 776; (LEUCKART and SCHMIDT), 1885, A., 1224.
- sulphide, dinitro- (EKSTRAND), 1885, A., 171.
- disulphides, sulpho- $\alpha$ - and - $\beta$ -, potassium derivatives of (LEUCKART), 1890, A., 606.
- $\alpha$ -tolylcarbamate (GATTERMANN and CANTZLER), 1892, A., 832.
- Naphthylido-. See Naphthylamido-.
- Naphthylimidazole. See Naphthylglyoxaline.
- $\alpha$ -Naphthylimidobenzil (*naphthilbenzil*) (BANDROWSKY), 1889, A., 147.

- $\beta$ -Naphthylimidobenzoin** (VOIGT), 1886, A., 888.
- $\beta$ -Naphthyl- $\beta$ -imidobutyric acid**, synthesis of (KNORR), 1884, A., 1198.
- Naphthylimidodiacetic acids**,  $\alpha$ - and  $\beta$ - (BISCHOFF and HAUSDÖRFER), 1890, A., 1309.
- $\alpha$ -Naphthyl- $\omega$ -imidotoluenesulphonic acid** (KAFKA), 1891, A., 720.
- $\beta$ -Naphthylmelamine** (FRIES), 1886, T., 740.
- $\alpha$ -Naphthylmethenyldiphenyldiamine** (BOESSNECK), 1883, A., 808.
- $\beta$ -Naphthylmethylaniline** (*naphthylcarbinylaniline*) (BAMBERGER and BOCKMANN), 1887, A., 675.
- Naphthylmethyl-biazolones and - $\psi$ -thiobiazolones**,  $\alpha$ - and  $\beta$ - (FREUND), 1892, A., 509, 508.
- $\alpha$ -Naphthylmethylic chloride** (SCHERLER), 1892, A., 494.
- $\beta$ -Naphthylmethylic chloride and bromide** (SCHULZE), 1884, A., 1184.
- 1: $\beta$ -Naphthyl-3-methylpyrazolone** (*naphtha-oxy-methylquinizine*) (KNORR), 1884, A., 1154.
- 1: $\alpha$ -Naphthyl-3-methyl-5-pyrazolone-keto-4- $\alpha$ -naphthylhydrazone** (SPRAGUE), 1891, T., 342.
- $\beta$ -Naphthylmethylsulphone** (OTTO and RÖSSING), 1892, A., 623.
- $\alpha$ -Naphthylmethylthiohydantoin** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.
- Naphthyl-naphthylenebenzenylamidine** (RIS), 1888, A., 58.
- $\alpha$ -Naphthylsazoneglyoxalcarboxylic acid** (NASTVOGEL), 1889, A., 238.
- Naphthylphenyl-**. See Phenyl-naphthyl.
- $\alpha$ -Naphthylphthalamic acid and  $\alpha$ -naphthylphthalimide** (PIUTTI), 1886, A., 473, 472.
- Naphthylpiperidines**,  $\alpha$ - and  $\beta$ - (LELMANN and BÜTTNER), 1890, A., 1003.
- $\alpha$ -Naphthylpropionic acid and  $\beta$ -bromo- and  $\alpha\beta$ -dibromo-** (BRANDIS), 1889, A., 1200.
- $\beta$ -Naphthylpropylene- $\psi$ -semithiocarbazide** (AVENARIUS), 1891, A., 550.
- $\alpha$ -Naphthylpropylene- $\psi$ -thiocarbamide** (PRAGER), 1890, A., 160.
- Naphthylquinoline** (ELIASBERG and FRIEDLÄNDER), 1892, A., 1107.
- Naphthylrosinduline and isonaphthylrosinduline** (FISCHER and HEPP), 1890, A., 910.
- $\alpha$ -Naphthylsemicarbazide** (PINNER), 1888, A., 687.
- $\beta$ -Naphthylsemicarbazide** (PINNER), 1888, A., 687; (HAUFF), 1890, A., 61.
- $\alpha$ -Naphthylsemithiocarbazide** (FREUND), 1892, A., 510.
- $\beta$ -Naphthylsemithiocarbazide** (HAUFF), 1890, A., 61.
- Naphthylsuccinamic acids**,  $\alpha$ - and  $\beta$ - (PELLIZZARI and MATTEUCCI), 1888, A., 1302, 1303.
- Naphthylsuccinimides**,  $\alpha$ - and  $\beta$ - (PELLIZZARI and MATTEUCCI), 1888, A., 1302, 1303.
- $\beta$ -Naphthylsulphonamic acid**, ammonium salt of (TRAUBE), 1891, A., 569.
- Naphthylthiocarbamic acids**, salts of (LOSANITSCH), 1892, A., 56.
- $\alpha$ -Naphthylthiocarbamide** (MARCKWALD), 1892, A., 1331.
- $\alpha$ -Naphthylthiocarbazine** (FREUND), 1892, A., 510.
- $\beta$ -Naphthylthiocarbazine** (HAUFF), 1890, A., 61.
- Narceine and narcotine**. See Alkaloids.
- Narceinic acid** (CLAUS and MEIXNER), 1888, A., 612.
- Naringenin** (WILL), 1885, A., 906.
- Naringenic acid**. See *p*-Coumaric acid.
- Naringin and its derivatives** (WILL), 1885, A., 906; 1887, A., 497.
- sugar from** (WILL), 1887, A., 715.
- Natrolite** (SCHUBERT), 1883, A., 35; (NEGRI), 1891, A., 1438.
- from Magnet Cove, Arkansas** (GENTH and PENFIELD), 1892, A., 793.
- from Monte Baldo** (LUZZATTO), 1890, A., 114; 1892, A., 690.
- of Montecatini** (MATTIROLLO), 1891, A., 1438.
- analysis of** (LINDSTRÖM), 1889, A., 219.
- Natrophilite from Branchville** (BRUSH and DANA), 1890, A., 1072.
- Nectar** (v. PLANTA), 1886, A., 575.
- Neodymium** (AUER VON WELSBACH), 1885, A., 1113.
- oxide, emission spectrum of** (HAITINGER), 1892, A., 2.
- Neossine** (GREEN), 1886, A., 635.
- Neotesite** (IGELSTRÖM), 1890, A., 1076.
- Nepaulite**, so-called (MALLET), 1886, A., 207.
- Nephelinic tephrite of the Jamma Valley** (MICHEL-LÉVY), 1886, A., 433.
- Nephelite** (*nepheline*) from the Cape Verde Islands, analysis of (DOELTER), 1883, A., 722.

- Nephelite** (*nepheline*) in the oligoclase of Dénise (DES CLOIZEAUX and JANNETTAZ), 1883, A., 1067.  
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- Nephelite-basalt** from the Cape Verde Islands, analysis of (DOELTER), 1883, A., 722.  
 near Tryberg in the Black Forest (WILLIAMS), 1883, A., 725.  
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- Nephelite rocks** in the United States (WOLFF), 1885, A., 230.  
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- Nephelite-syenite** of the Kola Peninsula (RAMSAY), 1891, A., 531.  
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- Nephrite** (v. BECK' and v. MUSCHKETOFF), 1883, A., 1068; (CLARKE and MERRILL), 1890, A., 716.  
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- o*-**Nitraniido- $\alpha$ -naphthaquinone** (LEICESTER), 1890, A., 1446.
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- Nitranthraquinone** (ROEMER), 1883, A., 71.
- di*-**Nitranthraquinone** (ROEMER), 1883, A., 737.
- action of concentrated sulphuric acid on (LIEBERMANN and HAGEN), 1883, A., 72; (LIEBERMANN), 1883, A., 597; (LIFSCHÜTZ), 1884, A., 1187.
- $\alpha$ -**Nitranthraquinonesulphonic acid** and its derivatives (CLAUS), 1884, A., 1040.
- action of strong sulphuric acid on, and the constitution of the latter (LIFSCHÜTZ), 1884, A., 1189.
- Nitranthrol** (PERKIN and MACKENZIE), 1892, T., 869.
- Nitranthrone**, and the action of alcoholic potash on (PERKIN and MACKENZIE), 1892, T., 865, 868.
- Nitrantipyrin** (KNORR), 1884, A., 1378; (JANDRIER), 1892, A., 730.
- di*-**Nitrapione** (CIAMICIAN and SILBER), 1890, A., 1295.
- Nitrates**. See Nitric acid under Nitrogen.
- Nitration** (MEYER), 1889, A., 387.
- with nitric peroxide (ARMSTRONG and ROSSITER), 1891, P., 91.
- Nitratopurpleorhodium chloride**, dithionate and nitrate (JÖRGENSEN), 1887, A., 114.
- Nitratropine** (EINHORN and FISCHER), 1892, A., 1014.
- Nitrazo**-. See Azo-.
- Nitrazo-compounds**, secondary (MELDOLA), 1883, T., 434.
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- Nitre**. See Potassium nitrate.
- Nitrethane**. See Ethane.
- Nitrethenyl-*o*-amidobenzamide** (DEHOFF), 1890, A., 802; 1891, A., 84; (THIEME), 1891, A., 917.

- Nitroethoxybenzamide** (THIEME), 1891, A., 916.
- Nitroethoxybenzoic acid** (THIEME), 1891, A., 916.
- Nitroethoxybenzonitrile** (LOBRY DE BRUYN), 1885, A., 657.
- diNitroethoxydiphenyl** (HIRSCH), 1889, A., 511.
- diNitroethoxydiphenylamine** (SCHÖPFF), 1889, A., 773.
- diNitroethoxyethylhydroquinoline** (KOHN), 1886, T., 509.
- 1-Nitr- $\beta$ -ethoxynaphthalene**, and action of ammonia on (WITTKAMPF), 1884, A., 1036.
- 1':4'-diNitr- $\beta$ -ethoxynaphthalene** (ONUFROWICZ), 1891, A., 321.
- m-Nitroethoxyphenyldibromonitroethane** (FRIEDLÄNDER and LAZARUS), 1885, A., 1138.
- Nitr- $\beta$ -ethoxytoluene**, 4:6-*di*- and 2:4:6-*tri*- (STAEDL and KOLB), 1891, A., 187.
- p-Nitroethylacetanilide** (NÖLTING and COLLIN), 1884, A., 1013.
- Nitroethylacetothienone** (SCHLEICHER), 1886, A., 227.
- m-Nitroethylaceto-p-toluidide** (NIE-MENTOWSKI), 1887, A., 938.
- o-Nitroethylaniline** (HEMPEL), 1889, A., 600; 1890, A., 611.
- diNitroethylaniline** (HEMPEL), 1889, A., 600.
- m-Nitroethylbenzaldoximes**, stereoisomeric (GOLDSCHMIDT and KJELLIN), 1891, A., 1478.
- Nitroethylisobenzaloximes**, *m*- and *p*- (GOLDSCHMIDT and KJELLIN), 1891, A., 1478, 1477.
- m-Nitroethylbenzenylamidine** (LOSSEN), 1892, A., 52.
- p-Nitroethylbenzenyloxime nitrite** (WEISE), 1890, A., 46.
- Nitr-p-ethylbenzoic acid** and its salts (ASCHENBRANDT), 1883, A., 320.
- m-Nitr- $\alpha$ -ethylcinnamaldehyde** (v. MILLER and ROHDE), 1889, A., 984.
- diNitroethylenecarbamide** (FRANCHIMONT and KLOBBIE), 1888, A., 1180.
- tetraNitroethylenic bromide** (*dibromotetranitroethane*) (LOSANITSCH), 1883, A., 564; (VILLIERS), 1884, A., 33.
- Nitroethylenic glycol**, magnetic rotatory power of (PERKIN), 1889, T., 684, 726.
- diNitroethylhydro-p-coumaric acid** (STOEHR), 1884, A., 1350.
- Nitroethylic alcohol** (DEMUTH and MEYER), 1889, A., 366; 1890, A., 857.
- sodium salt of (DEMUTH and MEYER), 1890, A., 858.
- Nitroethylic chloride** (DEMUTH and MEYER), 1890, A., 858.
- diNitroethylenephthalide** (GABRIEL), 1886, A., 620.
- triNitroethyl- $\alpha$ - and - $\beta$ -naphthols** (STAEDL), 1883, A., 863.
- p-Nitroethylphenylnitrosamine** (MELDOLA and STREATFIELD), 1886, T., 631.
- m-Nitroethyl-p-toluidine** (NÖLTING and STRICKER), 1886, A., 544; (NÖLTING and ABT), 1888, A., 274.
- Nitric acid**, anhydride, oxide and peroxide. See under Nitrogen.
- Nitric organism**. See Microbes.
- Nitrides**, action of hydroxyhydrocarbon derivatives on (VIDAL), 1891, A., 1003.
- Nitrification** in presence of copper and other metals (KAPPEL), 1883, A., 286.
- Nitrification** as applied to agriculture. See under Agricultural Chemistry.
- Nitric bases**, formation of, from organic acids and amines (BERNTHSEN), 1883, A., 1099.
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- formation of (MICHAEL and JEAN-PRÊTRE), 1892, A., 1094.
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- ketonic, action of aromatic amines on (BOUVEAULT), 1891, A., 51.
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- synthesis of (BOUVEAULT), 1891, A., 41.
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- refractive powers of (COSTA), 1892, A., 757.
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- Nitriles**, action of hydroxylamine on (TIEMANN), 1884, A., 734.  
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- Nitriles**, chloro-, volatility of (HENRY), 1885, A., 1044.
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- Paranitriles** (MÖHLAU), 1883, A., 342.
- Nitrilotriphenylmethane**. See Phenyl-acridine.
- Nitrites and hyponitrites**. See Nitrous and Hyponitrous acids under Nitrogen.
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- Nitrobenzaldehyde**. See Benzaldehyde.
- Nitrobenzaldoximes**. See Benzaldoxime.
- m-Nitrobenzamide**, silver derivative of (TAFEL and ENOCH), 1890, A., 973.
- m-Nitro-m-benzamidobenzamide** (SCHULZE), 1889, A., 779.
- Nitrobenzene**. See Benzene.
- Nitrobenzeneazo-**. See Benzeneazo-.
- Nitrobenzene-p-diazopiperidine** (WALLACH), 1887, A., 131.
- Nitrobenzenehomo-o-phthalopropyl-imide** (LE BLANC), 1889, A., 256.
- m-Nitrobenzenesulphinic acid** (LIMPRICHT), 1887, A., 723.
- 2:4-diNitrobenzenesulphonic acid** (WILLGERODT and MOHR), 1885, A., 665; 1886, A., 1030.
- tri-Nitrobenzenesulphonic acid** (WILLGERODT), 1885, A., 1232.
- m-Nitrobenzenylamidine** (TAFEL and ENOCH), 1890, A., 973.
- m-Nitrobenzenylamidoxime** and its derivatives (SCHÖPFF), 1885, A., 896, 1217.
- p-Nitrobenzenylamidoxime** (WEISE), 1890, A., 44.
- p-Nitrobenzenylamidoxime-ethylidene** (WEISE), 1890, A., 46.
- p-Nitrobenzenylazoximeacetylenyl** (WEISE), 1890, A., 46.
- m-Nitrobenzenylazoximebenzenyl** and its derivatives (SCHÖPFF), 1885, A., 897, 1217.
- p-Nitrobenzenylazoximebenzenyl** (WEISE), 1890, A., 45.
- m-Nitrobenzenylazoxime-ethenyl** (SCHÖPFF), 1885, A., 897.
- p-Nitrobenzenylazoxime-ethenyl** (WEISE), 1890, A., 45.
- m-Nitrobenzenylazoxime-m-nitrobenzenyl** (STIEGLITZ), 1890, A., 256.
- m-Nitrobenzenyldioxytetrazotic acid** (LOSSEN and NEUBERT), 1891, A., 1040.
- p-Nitrobenzenylimidoximecarbonyl** (WEISE), 1890, A., 45.
- Nitrobenzidine**, *m-mono-* and *m-di-* (TÄUBER), 1890, A., 782.
- di-Nitrobenzidine** (v. BANDROWSKI), 1888, A., 286.
- m-di-Nitrobenzidine-m-sulphonic acid** (ZEHR), 1891, A., 313.
- Nitrobenzil** and its dioximes (HAUSMANN), 1890, A., 624.
- iso-di-Nitrobenzil**, reduction of (GOLUBEFF), 1885, A., 660.
- m-Nitrobenzimidethyl ether** (TAFEL and ENOCH), 1890, A., 973.
- p-Nitrobenzobenzylamide** (HAFNER), 1889, A., 982; 1890, A., 486.
- Nitrobenzobromamides**, *o-*, *m-* and *p-* (HOOGWERFF and VAN DORP), 1889, A., 982.
- m-Nitrobenzoic acetic anhydride** (GREENE), 1890, A., 53.
- o-Nitrobenzoic acid**, derivatives of (BISCHOFF and RACH), 1885, A., 263.
- Nitrobenzoic acids**, *o-*, *m-* and *p-*, conversion of the three nitranilines into (SANDMEYER), 1885, A., 981.
- m-Nitrobenzoic anhydride** (SCHULZE), 1889, A., 779.
- p-Nitrobenzoic sulphinide** (NOYES), 1886, A., 804.
- o-Nitrobenzonitrile** (MEYER), 1886, A., 63.
- m-Nitrobenzonitrile** (GABRIEL), 1883, A., 916; (SCHÖPFF), 1885, A., 896.
- Nitrobenzophenone**. See Benzophenone.
- p-Nitrobenzophenylhydrazide** (HAUSKNECHT), 1889, A., 507.
- p-Nitrobenzo-p-toluidide** (GATTERMANN and NEUBERG), 1892, A., 839.

- p*-Nitrobenzoylacetic acid and its derivatives (PERKIN and BELLENOT), 1884, A., 1023; 1885, A., 794; 1886, T., 440; P., 193.
- o*-Nitrobenzoylacetone (FISCHER and KUZEL), 1884, A., 60; (GEVEKOHT), 1884, A., 445.
- p*-Nitrobenzoylcarbinol (ENGLER and ZIELKE), 1889, A., 505.
- $\alpha$ -Nitro- $\beta$ -benzoylnaphthol, molecular transformation of (BÖTTCHER), 1883, A., 1113.
- m*-Nitrobenzoylpiperidine and its derivatives (SCHOTTEN), 1888, A., 1105.
- Nitrobenzoylresorcinol (ERRERA), 1886, A., 51.
- p*-Nitrobenzoyl-tetramethylene- and -trimethylene-carboxylic acids (PERKIN and BELLENOT), 1885, A., 795.
- Nitrobenzyl ether, *o*-, *m*- and *p*- (ERRERA), 1889, A., 248.
- tri*Nitrobenzyl methyl ketone (DITTRICH), 1890, A., 1419.
- p*-Nitrobenzylacetamide (AMSEL and V. HOFMANN), 1886, A., 698; (HAFNER), 1889, A., 982; 1890, A., 486.
- o*-Nitrobenzylacetanilide (PAAL and KRECKE), 1890, A., 1443.
- p*-Nitrobenzylacetanilide (MELDOLA and SALMON), 1888, T., 779.
- o*-Nitrobenzylacetomethylamide (GABRIEL and JANSEN), 1892, A., 218.
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- o*-Nitrobenzylaniline and its derivatives (LELLMANN and STICKEL), 1886, A., 793.  
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- m*-Nitrobenzylisobenzaldoxime (BEHREND), 1892, A., 50.
- p*-Nitrobenzylisobenzaldoxime, modifications of (BEHREND and KÖNIG), 1890, A., 1412.
- o*-Nitrobenzylbenzamide (GABRIEL and JANSEN), 1890, A., 1442.
- o*-Nitrobenzylcarbamide (GABRIEL and JANSEN), 1892, A., 218.
- p*-Nitrobenzylcarbamide (HAFNER), 1889, A., 982; 1890, A., 486.
- o*-Nitrobenzylcyanocamphor (HALLER), 1891, A., 1499.
- Nitrobenzyldeoxybenzoins, *o*- and *p*- (BUDBEBERG), 1890, A., 1142.
- m*-Nitrobenzyl dimethylamine (BORG-MANN), 1886, A., 57.
- o*-Nitrobenzylethyl-*m*-amidophenol hydrochloride (LELLMANN and BOYE), 1890, A., 1116.
- o*-Nitrobenzylformamide (GABRIEL and JANSEN), 1890, A., 1443.
- o*-Nitrobenzylformanilide (PAAL and BUSCH), 1890, A., 72.
- o*-Nitrobenzylformo-*o*- and -*p*-toluidides (PAAL and BUSCH), 1890, A., 74, 73.
- m*-Nitro- $\beta$ -benzylhydroxylamine (BEHREND), 1892, A., 51.
- p*-Nitrobenzylic alcohol (HAFNER), 1890, A., 486.  
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- Nitrobenzylic chloride, reduction of (PELLIZZARI), 1885, A., 770.
- o*-Nitrobenzylic chloride (ABELLI), 1883, A., 1092; (KUMPF), 1884, A., 1004; (NÖLTING), 1884, A., 1005; 1885, A., 52.
- m*-Nitrobenzylic chloride (ABELLI), 1883, A., 1092.
- p*-Nitrobenzylic chloride (KUMPF), 1884, A., 1004.
- Nitrobenzylic iodides, *o*- and *p*- (KUMPF), 1884, A., 1004.
- p*-Nitrobenzylic nitrate (STAEDEL), 1883, A., 866.
- p*-Nitrobenzylic picrate (KUMPF), 1884, A., 1005.
- p*-Nitrobenzylidenamidophenyltolylamine (REICHOLD), 1890, A., 610.
- o*-Nitrobenzylideneazine (CURTIUS and JAY), 1889, A., 393.
- m*-Nitrobenzylidenbenzidine (SCHIFF and VANNI), 1890, A., 1298.
- m*-Nitrobenzylidenedimethyldisulphone (BONGARTZ), 1886, A., 938.
- Nitrobenzylidenemalononic acid. See Benzylidenemalononic acid.
- m*-Nitrobenzylidene-2'-methylindole (FISCHER), 1888, A., 284.
- 3-Nitrobenzylidene-2'-methylquinoline (WARTANIAN), 1891, A., 330.
- 4-Nitrobenzylidene-2'-methylquinoline (BULACH), 1887, A., 976.
- m* Nitrobenzylidene-4'-methylquinoline (HEYMANN and KOENIGS), 1888, A., 853.
- Nitroisobenzylidenephthalimidine (GABRIEL), 1886, A., 630.
- m*-Nitrobenzylidene-*p*-xylylidine (PFLUG), 1890, A., 606.
- p*-Nitrobenzylidenic chloride, preparation of (ZIMMERMANN and MÜLLER), 1885, A., 771.
- p*-Nitrobenzyl-*p*-nitroisobenzaldoxime (BEHREND and KÖNIG), 1891, A., 1034.
- Nitrobenzyl-*d*initro-*o*-cresol and -*di*-nitrophenol (STAEDEL), 1883, A., 864.
- Nitrobenzylphosphinic acid (LITTHAUER), 1889, A., 1168.
- o*-Nitrobenzylphthalimide (GABRIEL), 1887, A., 1037.

- m*-Nitrobenzylphthalimide (GABRIEL and HENDESS), 1888, A., 144.
- p*-Nitrobenzylphthalimide (HAFNER), 1889, A., 982; (SALKOWSKI), 1889, A., 1174.
- di*Nitro-*m*-benzyltoluene (SENF), 1884, A., 427.
- o*-Nitrobenzyl-*p*-toluidine and its derivatives (LELLMANN and STICKEL), 1886, A., 793.
- Nitrobenzyl-*m*-xylidine (JABLINGONNET), 1892, A., 1320.
- penta*Nitrobisazobenzenephenylhydrazine (WILLGERODT and MÜHE), 1892, A., 456.
- Nitrobrucine (HANSEN), 1886, A., 564.
- di*Nitrobutane and its salts (CHANCEL), 1883, A., 915; 1885, A., 647.
- Nitrobutane, tertiary (BEWAD), 1891, A., 653.
- di*Nitroisobutylaniline (BARR), 1888, A., 823.
- Nitro-*tert*.-butylbenzene (SEŃKOWSKI), 1890, A., 1296.
- m*-Nitroisobutylbenzene (GELZER), 1889, A., 43.
- Nitro-*p*-isobutylphenol (GELZER), 1889, A., 43.
- tri*Nitro-*m*-isobutyltoluene (BAUR), 1890, A., 1401; 1891, A., 1464.
- tri*Nitroisobutyl-*m*-xylene (BAUR), 1890, A., 1402.
- Nitrocampholenic acid (KACHLER and SPITZER), 1883, A., 1008.
- Nitrocamphor. See Camphor.
- Nitrocamphorates (CAZENEUVE), 1888, A., 963.
- Nitrocarbamidobenzoic acids. See Nitramidobenzoic acid.
- Nitrocarbazole (MAZZARA), 1891, A., 570.
- Nitrocarbonyl-*o*-amidophenol (v. CHELMICKI), 1891, A., 52.
- 1-Nitrocarbostyryl (v. MILLER and KINKELIN), 1889, A., 990.
- Nitrocarbostyryl,  $\alpha$ -,  $\beta$ - and  $\gamma$ - (FRIEDLÄNDER and LAZARUS), 1885, A., 1139.
- di*Nitrocarvacrol (MAZZARA), 1891, A., 47.
- Nitrocasein, use of, in dyeing (DOLLFUS), 1884, A., 1449.
- Nitrocellulose (CROSS and BEVAN), 1883, T., 23; (NETTLEFOLD), 1887, A., 792.
- Nitrochloroform. See Chloropierin.
- Nitrocinnamaldehyde. See Cinnamaldehyde.
- p*-Nitrocinnamaldoxime (EINHORN and GEHRENBECCK), 1890, A., 161.
- o*-Nitrocinnamhydrazoine (CORNELIUS and HOMOLKA), 1886, A., 1026.
- Nitrocinnamic acid. See Cinnamic acid.
- o*-Nitrocinnamoylacetone (FISCHER and KUZEL), 1883, A., 587, 588.
- o*-Nitrocinnamoylacetaldehyde (EINHORN), 1884, A., 1346.
- o*-Nitrocinnamoylformic acid (v. BAEYER and DREWSSEN), 1883, A., 341.
- tri*Nitrocitrotrianil (SCHNEIDER), 1888, A., 465.
- Nitrocobalt (SABATIER and SENDERENS), 1892, A., 1390.
- Nitrococcusic acid. See *tri*Nitrohydroxy-*m*-toluic acid.
- Nitrocærulignol (PASTROVICH), 1883, A., 1006.
- Nitrocopper (SABATIER and SENDERENS), 1892, A., 1390.
- Nitrocoumaraldehydes (v. MILLER and KINKELIN), 1887, A., 939.
- o*-Nitrocoumarin (v. MILLER and KINKELIN), 1889, A., 989.
- m*-Nitrocoumarin (TAEGER), 1887, A., 939; 1891, A., 918.
- o*-Nitrocoumarinic acid (v. MILLER and KINKELIN), 1889, A., 989.
- Nitrocresols. See Cresol.
- tri*Nitrocresotic acid. See *tri*Nitrohydroxy-*m*-toluic acid.
- Nitroresorcinol. See Nitro-2:4-dihydroxytoluene.
- Nitrocumenes. See Cumene.
- m*-Nitro- $\psi$ -cumenol (AUWERS), 1886, A., 144.
- 2:5-*di*Nitro- $\psi$ -cumenol (AUWERS), 1885, A., 381; 1886, A., 144.
- Nitro- $\psi$ -cumidinesulphonic acid (MAYER), 1887, A., 953.
- o*-Nitrocuminaldehyde (*o*-nitrocuminol) (EINHORN and HESS), 1884, A., 1352.
- Nitrocuminic acids. See Cuminic acid.
- Nitro- $\psi$ -cumo-quinol and -quinone (NEF), 1887, A., 255; 1888, T., 438.
- m*-Nitro- $\alpha$ -cumylacraldehyde (v. MILLER and RÖHDE), 1889, A., 984.
- Nitrocumylacrylic acid. See Cumylacrylic acid.
- m*-Nitro- $\psi$ -cumylic nitrate (AUWERS), 1885, A., 380.
- m*-Nitrocyananiline (SENF), 1887, A., 929.
- o*-*di*Nitrocyano-*s*-diphenylethane (*nitrocyandibenzyl*) (BAMBERGER), 1887, A., 131.
- Nitrocyano-*m*-xylene (AHRENS), 1892, A., 1437.
- Nitrocymenes. See Cymene.
- Nitrocymene- $\alpha$ -sulphonamide (ERRERA), 1890, A., 1287.



- 6-Nitro-*p*-cymene-2-sulphonic acid and an isomeride (ERRERA), 1890, A., 1287, 1288; 1891, A., 1066.
- 2:6-diNitrocymidine, constitution of (MAZZARA), 1890, A., 753.
- Nitro-*m*-isocymidine (KELBE and WARTH), 1884, A., 47.
- Nitrodehydropiperidylmethylurethane (SCHOTTEN), 1883, A., 814.
- Nitrodehydropiperidylurethane and its bromhydroxyl-derivative (SCHOTTEN), 1883, A., 814.
- p*-Nitrodeoxybenzoin (PETRENKO-KRITSCHENKO), 1892, A., 1227.
- p*-Nitrodeoxybenzoinoxime (NEY), 1888, A., 1197.
- Nitro-derivatives, method of preparing (ARMSTRONG and ROSSITER), 1891, P., 91.
- preparation of secondary and tertiary, from halogen derivatives of nitro-methane and nitroethane (BEWAD), 1889, A., 1128.
- magnetic rotation of (PERKIN), 1889, T., 687, 724.
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- first product of the reduction of, by stannous chloride (HOFFMANN and MEYER), 1892, A., 291; (WILLGERODT), 1892, A., 594; (KIRPAL), 1892, A., 1067.
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- explosive decomposition of (BERTHELOT), 1888, A., 216.
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- of alcohol radicles, action of alkalis on (SOKOLOFF), 1889, A., 365.
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- of the paraffin series, action of alkalis on (DUNSTAN and DYMOND), 1891, T., 410; P., 77.
- action of zinc ethyl on primary and secondary (BEWAD), 1889, A., 1127.
- diNitro-derivatives, reaction for (JANOVSKY), 1891, A., 685.
- Nitro- $\alpha$ -diacetophthalides, *o*- and *p*- (LELLMANN and REMY), 1886, A., 624.
- 2-Nitro-1:4-diaceto- $\alpha$ -naphthylenediamide (KLEEMANN), 1886, A., 472.
- Nitrodiaacetotolylene-*o*-diamides, *mono*- and *di*- (BISTRZYCKI and ULFFERS), 1892, A., 1197.
- 3-Nitrodiaetyl-*p*-amidophenol (HÄHLE), 1891, A., 430.
- m*-diNitrodiaetylbenzidine-*m*-sulphonic acid (ZEHRA), 1891, A., 313.
- Nitrodiaetylresorcinol (ERRERA), 1886, A., 51.
- Nitrodiazo-. See Diazo- under Azo-.
- m*-Nitrodibenzamide (LOSSEN), 1892, A., 52.
- Nitrodibenzotolylenediamide (BISTRZYCKI and ULFFERS), 1892, A., 1197.
- diNitrodibenzoyl-*p*-oxydiphenylamine (PHILIP and CALM), 1885, A., 156.
- Nitrodibenzoylresorcinols, *mono*-, and *tri*- (ERRERA), 1886, A., 50, 51.
- Nitrodibenzoylstyrene (JAPP and KLINGEMANN), 1890, T., 676.
- m*-diNitrodibenzylbenzene (BECKER), 1883, A., 203.
- p*-diNitrodibenzylbenzene (BASLER), 1884, A., 310.
- p*-diNitrodibenzylcarbamide (HAFNER), 1889, A., 982.
- Nitrodibenzylhydroxylamine, oxidation of (BEHREND and KÖNIG), 1892, A., 1456.
- o*-Nitrodibenzyllic *mono*- and *di*-sulphides (JAHODA), 1890, A., 487, 488.
- diNitrodibenzylidenedithioamide (EPHRAIM), 1891, A., 831.
- m*-Nitrodibenzylmethylamine (BORG-MANN), 1886, A., 56.
- di-*o*-Nitrodibenzylmethylamine (GABRIEL and JANSEN), 1892, A., 218.
- p*-diNitrodibenzylthiocarbamide (HAFNER), 1890, A., 487.
- Nitrodicresol (= nitrodihydroxyditolyl) (LOEWENHERZ), 1892, A., 852.
- diNitrodicresol (DENINGER), 1888, A., 838.
- diNitrodiethenyltetramidoditolyl (BANKIEWICZ), 1888, A., 1184.
- Nitro-1:4-diethoxybenzenes, *mono*-, *di*-, and *tri*- (NIETZKI), 1883, A., 466.
- triNitro-1:4-diethoxybenzene, actions of (NIETZKI and KAUFMANN), 1892, A., 314.
- m*-Nitrodiethylaniline (GROLL), 1886, A., 347.
- p*-Nitrodiethylaniline (LIPPMANN and FLEISSNER), 1883, A., 868, 1100.
- diNitrodiethylaniline (LIPPMANN and FLEISSNER), 1884, A., 179.
- Nitrodiethylbenzamide (VAN ROMBURGH), 1886, A., 546.
- diNitrodihydroxyanisole (NIETZKI and KURTENACKER), 1892, A., 596.

- tetra*Nitro-1:3(?)-dihydroxybenzene (HENRIQUES), 1883, A., 327, 329.
- Nitro-*p*-dihydroxydiphenyltrichloroethanes, *di*- and *tetra*- (ELBS and HOERMANN), 1889, A., 998.
- 3-Nitro-2:4-dihydroxypyridine-5- or 6(?) -carboxylic acid (BISCHOFF), 1889, A., 519.
- Nitro-2:5-dihydroxyquinone (NIETZKI and SCHMIDT), 1889, A., 968.
- 2:5-*di*Nitro-3:6-dihydroxyquinone. See Nitranilic acid.
- di*Nitro-2:4-dihydroxytoluene (*dinitro-cresol*) (V. KOSTANECKI), 1888, A., 264.
- 4-Nitro-3:6-dihydroxytoluquinone (*tolunitranilic acid*) (KEHRMANN), 1888, A., 940; (KEHRMANN and BRASCH), 1889, A., 969.
- m*-Nitro-*p*-dihydroxytriphenylmethane (DEVARDA and ZENONI), 1891, A., 1346.
- di*Nitro-*p*-dihydroxytriphenylmethane (RUSSANOFF), 1891, A., 1235.
- tetra*Nitrodimethyldiamidobenzophenone (VAN ROMBURGH), 1888, A., 1079, 1197.
- di*Nitrodimethylamidodiphenylamine (*nitrodimethylphenylphenylenediamine*) (LELLMANN and MACK), 1890, A., 1410.
- di*Nitrodimethylamidophenol and its derivatives (LIPPMANN and FLEISSNER), 1886, A., 235.
- Nitrodiphenylamine, reduction of (FRANCHIMONT), 1885, A., 963.
- Nitrodiphenylaniline. See Dimethylaniline.
- Nitrodiphenyl-*o*-anisidines, *mono*- and *tri*- (GRIMAU and LEFÈVRE), 1891, A., 1031.
- tetra*Nitrodimethylazobenzene (MERTENS), 1886, A., 1022.
- Nitrodiphenylbenzamide (VAN ROMBURGH), 1886, A., 546.
- tetra*Nitrodiphenylbenzidine (VAN ROMBURGH), 1887, A., 245.
- Nitro-2:4-dimethylbenzoic acid (AHRENS), 1892, A., 1437.
- 3-Nitro-2:4-dimethylbenzoic acid (CLAUS), 1890, A., 980.
- 3:5-*di*Nitro-2:4-dimethylbenzoic acid (CLAUS), 1890, A., 981.
- di*Nitrodiphenylmalonamide (FRANCHIMONT), 1886, A., 449.
- tetra*Nitrodimethyldinitrodiamidobenzophenone (VAN ROMBURGH), 1888, A., 1079, 1196.
- di*Nitrodiphenyloxamide (FRANCHIMONT), 1886, A., 448.
- 4-Nitrodiphenyl-*o*-phenylenediamine (HEIM), 1888, A., 1097.
- 2:4:6-(?)*tri*Nitrodimethyl-*m*-phenylenediamine (VAN ROMBURGH), 1888, A., 1185.
- 4-Nitro-1:3-dimethylquinoline (NÖLTING and TRAUTMANN), 1891, A., 328; 1892, A., 729.
- Nitrodiphenyl-*α*-resorcylic acid (*nitro-dimethoxybenzoic acid*) (MEYER), 1888, A., 148.
- di*Nitro-*s*-dimethylsulphonamide (FRANCHIMONT and KLOBBIE), 1885, A., 969.
- di*Nitro-*β*-dinaphtholdisulphonic acid (JULIUS), 1888, A., 161.
- Nitrodinaphthyls, *mono*- and *di*- (JULIUS), 1887, A., 56.
- tetra*Nitro-*β*-dinaphthyl (STAUB and SMITH), 1885, T., 105.
- di*Nitrodi-*β*-naphthyl ketone oxide (CLAUS and RÜPPEL), 1890, A., 510.
- Nitrodi-*β*-naphthylamines, *di*- and *tetra*- (RIS and WEBER), 1884, A., 752; (RIS), 1888, A., 58.
- hexa*Nitrodi-*β*-naphthylamine (RIS), 1888, A., 58.
- tetra*Nitrodi-*α*- and -*β*-naphthylcarbamides (PERKIN), 1892, T., 467.
- Nitrodi-*β*-naphthylene oxides, *mono*- and *tetra*- (HODGKINSON and LIMPAUGH), 1891, T., 1100.
- di*Nitro-*αβ*-dinaphthyl sulphide (EKSTRAND), 1885, A., 171.
- p*-Nitro-3:3'-diphenic acid (*nitrodiphenylcarboxylic acid*) (STRASBURGER), 1884, A., 329.
- 3:3'-*di*Nitro-*p*-diphenol (KUNZE), 1889, A., 262.
- 1:2-*di*Nitrodiphenyl (TÄUBER), 1891, A., 570.
- 1:3-*di*Nitrodiphenyl (BRUNNER and WITT), 1887, A., 673.
- p*-*di*Nitrodiphenylacetylene (ELBS and BAUER), 1887, A., 152.
- Nitrodiphenylamine. See Diphenylamine.
- di*Nitrodiphenylamine-*o*-carboxylic acid and its derivatives (JOURDAN), 1885, A., 988.
- m*-Nitrodiphenylamine-*p*-carboxylic acid (SCHÖPFF), 1890, A., 374.
- Nitrodiphenylbenzylidenemaleimidine (COHN), 1892, A., 487.
- tri*Nitrodiphenylbenzylphosphine oxide (DÖRKEN), 1888, A., 833.
- m*-Nitro-*s*-diphenylcarbamide (LEUCKART), 1890, A., 760.
- p*-Nitro-*s*-diphenylcarbamide (GOLDSCHMIDT and MOLINARI), 1888, A., 1285; (LEUCKART), 1890, A., 760.
- m*-*di*Nitro-*s*-diphenylcarbamide (LOSANITSCH), 1883, A., 583.

- p-di*Nitrodiphenyldibutynyl ketone (EINHORN and GEHRENECK), 1890, A., 162.
- m-di*Nitrodiphenyldisulphine (EKBOM), 1891, A., 567.
- p-di*Nitro-*s*-diphenylethane, preparation of (ROSER), 1887, A., 836.
- Nitro-*as*-diphenylethanes, *mono*- and *di*- (ANSCHÜTZ and ROMIG), 1885, A., 768.
- Nitrodiphenylformamidine *m-mono*- and *m-di*- (COMSTOCK and WHEELER), 1892, A., 706, 707.
- Nitrodiphenylguanidine *dicyanide* (HIRSCH), 1888, A., 947.
- α-di*Nitro-*s*-diphenylhydrazine (WILLGERODT and FERKO), 1888, A., 829; (WILLGERODT and HERMANN), 1889, A., 1160; 1890, A., 1259.
- tri*Nitro-*s*-diphenylhydrazine (FISCHER), 1890, A., 40.  
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- m*-Nitrodiphenylzindihydroxytartaric acid (BISCHLER and BRODSKY), 1890, A., 151.
- Nitrodiphenylmethane. See Diphenylmethane.
- m*-Nitro-*s*-diphenylmethylcarbamide (LELLMANN and BENZ), 1891, A., 1215.
- Nitrodiphenylmethylcarbinol (ANSCHÜTZ and ROMIG), 1885, A., 768.
- Nitro-1:5-diphenyl-3-methylpyrazoles, *o*- and *p*- (KNORR and JÖDICKE), 1885, A., 1247, 1248.
- tri*Nitro-1:3-diphenyl-5-methylpyrazole (KNORR and LAUBMANN), 1889, A., 409.
- Nitro-1:5-diphenyl-3-methylpyrazole-4-carboxylic acids, *o*- and *p*- (KNORR and JÖDICKE), 1885, A., 1247, 1248.
- Nitrodiphenyl- $\alpha\beta$ -naphthatriazines, *o*-, *m*- and *p*- (MELDOLA and FORSTER), 1891, T., 681.
- o*-Nitrodiphenylnitrosamine (FISCHER), 1892, A., 332.
- Nitrodiphenyloxalylguanidine (HIRSCH), 1888, A., 947.
- Nitrodiphenylparabanic acid (HIRSCH), 1888, A., 947.
- di*Nitrodiphenylparabanic acid (v. STOJENTIN), 1885, A., 1195.
- di*Nitrodiphenylphosphinic acid (DÖRKEN), 1888, A., 833.
- di*Nitrodiphenylphosphonic acid (RAPPE), 1884, A., 1337.
- p-di*Nitrodiphenylpiperazine (SCHMIDT and WICHMANN), 1892, A., 210.
- di*Nitro-2:3-diphenylpyrazine (MASON), 1889, T., 101.
- Nitrodiphenylquinols, *di*-, *tri*- and *tetra*- (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- Nitrodiphenylresorcinols, *tetra*-, *penta*- and *hexa*- (NIETZKI and SCHÜNDELEN), 1892, A., 310.
- m*-Nitrodiphenylsemithiocarbazide (BISCHLER and BRODSKY), 1890, A., 151.
- di*Nitrodiphenylsulphoxide (COLBY and MOLOUGHLIN), 1887, A., 372.
- Nitrodiphenyltetrazine (RUHEMANN), 1890, T., 51.
- Nitro-*s*-diphenylthiocarbamides, *mono*- and *di*-, action of iodine on (LOSANITSCH), 1883, A., 582.
- Nitrodiphenylthiocarbimides, *m-mono*- and *m-di*- (STEUEDEMANN), 1883, A., 801.
- Nitrodipthalyl (GRAEBE and GUYE), 1886, A., 882.
- Nitrodipthalylethanes, *mono*- and *di*- (GABRIEL), 1886, A., 620.
- di*Nitrodipiperonylideneacetone (HABER), 1891, A., 705.
- di*Nitrodipropylaniline (VAN ROMBURGH), 1889, A., 971.
- di*Nitro-*p*-dipropylbenzene (KÖRNER), 1883, A., 321.
- di*Nitrodiorescinol (HAZURA), 1883, A., 1114.
- p*-Nitrodistyryl ketone (v. BAEYER and BECKER), 1883, A., 1120.
- di-o*-Nitrodistyrylvinyl ketone (DIEHL and EINHORN), 1885, A., 1222.
- di*Nitro-*o*-ditolyl, preparation of (TÄUBER and LOEWENHERZ), 1891, A., 1491.
- di*Nitroditolyl ketone (LANGE and ZUFALL), 1892, A., 1460.
- di*Nitroditolylethylenediamine (GATTERMANN and HAGER), 1884, A., 1142.
- Nitro-*o*- and *p*-ditolyltetrazines (RUHEMANN), 1890, T., 54, 51.
- Nitro-*p*-ditolylthiocarbamides, *o*- and *di*- (STEUEDEMANN), 1884, A., 308, 307.
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- Nitrofluorene (HODGKINSON), 1885, P., 37.
- p*-Nitrofluorene (STRASBURGER), 1884, A., 754.
- m*-Nitroformanilide (COMSTOCK and WHEELER), 1892, A., 706.
- p*-Nitroformanilide (OSBORNE and MIXTER), 1887, A., 250.
- Nitrofurfurylamine (DEUTZMANN), 1892, A., 43.
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- 2-Nitro-5-methoxyphenyl- $\beta$ -bromopropionic acid** (EICHENGRÜN and EINHORN), 1890, A., 1127.
- m*-**Nitro-*p*-methoxyphenyldibromopropionic acid** (EINHORN and GRABFIELD), 1888, A., 478.
- m*-**Nitro-*p*-methoxyphenylethylene** (EINHORN and GRABFIELD), 1888, A., 477.
- 2-Nitro-3-methoxy-2'-phenylquinoline** and its derivatives (v. MILLER and KINKELIN), 1887, A., 978.
- m*-**Nitro-*p*-methoxyacetophenyl-toluidide** (NIEMENTOWSKI), 1887, A., 937.
- p*-**Nitromethylamidoozobenzene**. See **Benzeneazomethylaniline**, nitro-.
- Nitromethylamidobenzoic acids** (THIEME), 1891, A., 916, 917.
- 5-Nitro-2-methylamidobenzomethylamide** (THIEME), 1891, A., 917.
- 2:4:6-tri-Nitromethylamidomethylnitramidobenzene** (VAN ROMBURGH), 1889, A., 1154.
- Nitromethylaniline**. See **Methylaniline**.
- tri*-**Nitromethyl-*o*-anisidine** (GRIMAUZ and LEFÈVRE), 1891, A., 1032.
- Nitro- $\beta$ -methylanthraquinone** (ROEMER and LINK), 1888, A., 1138.
- Nitromethylisobenzaldoxime**, *m*- and *p*- (GOLDSCHMIDT), 1890, A., 1262;  
(GOLDSCHMIDT and KJELLIN), 1891, A., 1477.
- Nitromethylbenzamide** (VAN ROMBURGH), 1886, A., 546.
- Nitromethylcarbostyryl** (FEER and KOENIGS), 1885, A., 1235.
- Nitromethylcoumaraldehyde** (v. MILLER and KINKELIN), 1889, A., 990.
- Nitromethylcoumaric acid** (*nitromethoxycinnamic acid*). See **Methylcoumaric acid**.
- Nitromethylenephthalide** (ZINCKE and LATTEN), 1892, A., 1231.
- Nitro-*o*-methylethylbenzenes**, *mono*- and *di*- (CLAUS and PIESZCZEK), 1887, A., 240.
- m*-**Nitromethyl-formanilide** and *iso*-**formanilide** (COMSTOCK and WHEELER), 1892, A., 706.

**Nitromethylhydantoin** (FRANCHIMONT and KLOBBIE), 1888, A., 1180; 1889, A., 1143.

action of water on (FRANCHIMONT and KLOBBIE), 1889, A., 125.

*di***Nitromethylhydro-*p*-coumaric acid** (STOEHR), 1884, A., 1350.

*di***Nitro-2'-methylindole** (ZATTI), 1890, A., 897.

**Nitro- $\alpha$ -methyl-naphthalene** (SCHERLER), 1892, A., 494.

*tri***Nitromethyl- $\alpha$ - and - $\beta$ -naphthols** (STAEDER), 1883, A., 863.

**Nitromethylpyrocatechol derivatives** (COUSIN), 1892, A., 1443.

*di***Nitromethylquinol** (WENDER), 1890, A., 752.

**Nitromethylquinoline.** See Methyl-quinoline.

**4-Nitromethylquinolone** (DECKER), 1892, A., 880.

*tri***Nitromethyl-*p*-toluidine** (NORTON and LIVERMORE), 1887, A., 1038.

**Nitro- $\beta$ -methylumbelliferone** (v. PECHMANN and COHEN), 1884, A., 1332.

**Nitromethyluracil** (BEHREND), 1887, A., 919; (LEHMANN), 1890, A., 32.

**Nitromolybdic acid** solution, concentrated, preparation of (GUYARD), 1884, A., 638.

**Nitronaphthalene.** See Naphthalene.

**Nitronaphthalene-1:1'-dicarboxylic acid and anhydride** (QUINCKE), 1888, A., 844.

**Nitronaphthalene-2:2'-disulphonic acid and its chloride** (ALÉN), 1883, A., 596.

*di***Nitronaphthalene-3:3'-disulphonic chloride** (ALÉN), 1883, A., 596.

**1:3'- $\alpha$ -Nitronaphthalenesulphonamide**, action of hydriodic acid on (EKBOM), 1891, A., 573.

**1:4'-Nitronaphthalenesulphonamide**, action of hydriodic acid on (EKBOM), 1890, A., 994.

**Nitronaphthalenesulphonic acid.** See Naphthalenesulphonic acid.

**Nitro- $\alpha$ -naphthamide** (EKSTRAND), 1886, A., 948.

**Nitro- $\beta$ -naphthaquinhydrone** (GROVES), 1884, T., 300.

**Nitro- $\beta$ -naphthaquinol** (GROVES), 1884, T., 299; (ZAERTLING), 1890, A., 509.

**Nitronaphthaquinone.** See Naphthaquinone.

**Nitro- $\beta$ -naphthaquinoneanilide** (BRAUNS), 1884, A., 1038; (KORN), 1884, A., 1186.

**Nitro- $\beta$ -naphthaquinone-*o*- and -*p*-toluidides** (BRAUNS), 1884, A., 1038.

**Nitronaphthoic acid.** See Naphthoic acid.

**Nitronaphthol.** See Naphthol.

**Nitronaphtholactone** (EKSTRAND), 1889, A., 153.

**4'-Nitro- $\alpha$ -naphthonitrile and nitro- $\beta$ -naphthonitrile** (GRAEFF), 1884, A., 80.

*m*-**Nitro-*p*- $\alpha$ - and - $\beta$ -naphthylamido-benzoic acids** (HEIDENSLEBEN), 1891, A., 307.

**Nitronaphthylamine.** See Naphthylamine.

**4'-Nitro- $\alpha$ -naphthylamine-4-sulphonic acid** (NIETZKI and ZÜBELEN), 1889, A., 514.

**$\alpha$ -Nitro- $\beta$ -naphthyl benzoate and acetate**, reduction of (BÖTTCHER), 1885, A., 659.

benzoate and acetate, molecular transformation of (BÖTTCHER), 1883, A., 1113.

*di***Nitronaphthyl sulphide** (EKSTRAND), 1885, A., 171.

**Nitronates** (DIVERS), 1883, T., 455, 466.

**Nitronitrosoanthrone** (PERKIN), 1891, T., 639.

action of sodium sulphide on (PERKIN), 1891, T., 640.

**Nitronitrosoazobenzene.** See Azo-benzene.

**Nitronitrosobenzeneazo-.** See Benzene-azo-.

*p*-**Nitronitroso- $\beta$ -benzylhydroxylamine** (BEHREND and KÖNIG), 1891, A., 1035.

*tetra***Nitronitrosobisazobenzene-*p*-chlorophenylhydrazine** (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 907.

*o*-**Nitro- $\omega$ -nitroso-*p*-diazotoluene chloride.** See Methyl-*o*-nitro-*p*-diazobenzene chloride, nitroso-.

*di-p*-**Nitrodinitrosoditoluene** (*bis-p*-nitronitrosylbenzyl) (BEHREND and KÖNIG), 1891, A., 1035.

*o*-**Nitronitrosoethylaniline** (HEMPEL), 1889, A., 600; 1890, A., 612.

*o*-**Nitronitrosomethylaniline** (HEMPEL), 1890, A., 612.

**Nitrodinitrosophenol** (WILLGERODT), 1891, A., 688; 1892, A., 594.

**Nitrodinitrosophenol-acenaphthene and -anthracene** (WILLGERODT), 1891, A., 689.

**2:4-Nitronitrosoresorcinol** (DE LA HARPE and REVERDIN), 1888, A., 679; 1889, A., 41.

**Nitronitroso-*m*-xylenecarboxylic acid** (CLAUS), 1890, A., 980.

- Nitronononaphthene** (KONOWALOFF), 1892, A., 443.
- Nitro-octylbenzenes**, *o*-, *m*- and *p*- (AHRENS), 1887, A., 133.
- di*Nitro-octylbenzene** (AHRENS), 1887, A., 133.
- Nitro-opianic acid**, behaviour of, with phenylhydrazine (LIEBERMANN), 1886, A., 550.  
reduction of (KLEEMANN), 1887, A., 584.
- Nitro-oreosolon** (JASSOY), 1890, A., 1154.
- 1-Nitro-oxalo- $\beta$ -naphthalide**, bis- (PERKIN), 1892, T., 466.
- m*-Nitro-oxalo-*p*-toluidide**, bis- (HINSBERG), 1883, A., 323.
- 5-Nitro-oxalo-*o*-toluidide**, bis- (PERKIN), 1892, T., 463.
- 3:5-*di*Nitro-oxalo-*o*- and -*p*-toluidides**, bis- (MIXTER and KLEEGER), 1889, A., 771; (PERKIN), 1892, T., 464, 465.
- tri*Nitro-oxanilanilide** (MIXTER and WALTHER), 1888, A., 142.
- Nitro-oxanilic acid**. See Oxanilic acid.
- Nitro-oxanilide**. See Oxanilide.
- Nitro-oxycamphor** (KACHLER and SPITZER), 1883, A., 215.
- 4-Nitro-2'-oxy-3:1'-dimethylquinoline** (DECKER), 1892, A., 880.
- m*-Nitro-4'-oxy-2'-methylquinazoline** (DEHOFF), 1891, A., 84; (THIEME), 1891, A., 917.
- Nitro-oxyquinone carbonate** (LÖWENBERG), 1886, A., 789.
- Nitroparaffins**, constitution of (KISSEL), 1885, A., 364.
- Nitropentane** (BEWAD), 1889, A., 1127.
- Nitroperseitol** (MÜNTZ and MARCANO), 1884, A., 1285.
- di*Nitro-*p*-phenacetide** (WENDER), 1890, A., 751.
- o*-Nitrophenacetin** (AUTENRIETH and HINSBERG), 1892, A., 160.
- Nitrophenaceturic acid** (HOTTER), 1888, A., 1299.
- m*-Nitrophenacylphthalimide** (SCHMIDT), 1890, A., 372.
- m*-Nitrophenacyl-*p*-toluidine** (LELLMANN and DONNER), 1890, A., 525.
- Nitrophenanthraquinone** (LACHOWICZ), 1884, A., 82.
- 2:4-*di*Nitrophenazoxine** (TURPIN), 1891, T., 724.
- o*-Nitro-*p*-phenetidine** (AUTENRIETH and HINSBERG), 1892, A., 160.
- 2:6-*di*Nitro-*p*-phenetidine** (WENDER), 1890, A., 751.
- Nitrophenetol**. See Phenetol.
- Nitrophenol**. See Phenol.
- 2:4:6-*tri*Nitrophenol**. See Picric acid.
- di*Nitrophenolsulphonic acid**, preparation of (BEYER and KEGEL), 1885, A., 269.
- Nitrophenophenanthrazine** (HEIM), 1888, A., 1097.
- p*-Nitrophenoxyacetophenone** (MÖHLAU), 1883, A., 332.
- p*-Nitrophenyl mercaptan** (WILLGERODT), 1885, A., 519; (LEUCKART), 1890, A., 604.
- di*Nitrophenyl mercaptan** (AUSTEN and SMITH), 1886, A., 693.  
ethers of (WILLGERODT), 1885, A., 519.
- m*-Nitrophenyl methyl ketoxime** (GABRIEL), 1883, A., 582.
- Nitrophenylacetamide**, *m*- and *p*- (PURGOTTI), 1891, A., 562.
- m*-Nitrophenylacetic acid** (GABRIEL and BORGSMANN), 1883, A., 1121.
- o*:*p*-*di*Nitrophenylacetic acid** (HECKMANN), 1884, A., 178.
- Nitrophenylacetoneitrile**. See Phenylacetoneitrile.
- Nitrophenyl- $\beta$ -alanine**. See Nitr- $\beta$ -anilidopropionic acid.
- Nitrophenylamido-**. See also Nitr-anilido-.
- Nitrophenyl-*di*-*p*-amidophenylisobutylmethanes**, *m*- and *p*- (BISCHLER), 1889, A., 133.
- Nitrophenyl- $\beta$ -amidopropionic acid**. See Nitr- $\beta$ -amidopropionic acid.
- m*-Nitrophenyl-*di*-*p*-amidotolylmethanes**,  $\alpha$ - and  $\beta$ - (BISCHLER), 1889, A., 133.
- p*-Nitrophenyl-*di*-*p*-amidotolylmethanes**,  $\alpha$ - and  $\beta$ - (BISCHLER), 1888, A., 287.
- Nitrophenyl-*di*-amido-*m*-xylylmethanes**, *m*- and *p*- (BISCHLER), 1889, A., 134.
- tetra*Nitrophenylazimidobenzene** (WILLGERODT), 1892, A., 1454.
- di*Nitrophenylazimidotolylamine** (ERNST), 1891, A., 300.
- o*-Nitrophenylazoacetacetic acid**, and its derivatives (BAMBERGER), 1885, A., 157.
- o*-Nitrophenylazoacetophenone** (BAMBERGER and CALMAN), 1886, A., 62.
- di*-*o*-Nitrophenylbenzidine** (SCHÖPFF), 1889, A., 773.
- Nitrophenylbenzyl oxides**, *o*- and *p*- (KUMPF), 1884, A., 1005.
- m*-Nitrophenylbenzylcarbamide** (KÜHN and RIESENFELD), 1892, A., 312.
- o*-Nitrophenylbenzylhydrazine** (PAAL and BODEWIG), 1892, A., 1455.
- o*-Nitrophenylbenzylidenehydrazine** (BISCHLER), 1890, A., 148.



- m*-Nitrophenylbenzylidenehydrazine (BISCHLER and BRODSKY), 1890, A., 150.
- p*-Nitrophenyl- $\gamma$ -*di*bromomethyl- $\beta$ -bromacrylic acid (EINHORN and GEHRENBECK), 1889, A., 396; 1890, A., 162.
- p*-Nitrophenylbromomethylactic acid, lactone of (EINHORN and GEHRENBECK), 1889, A., 397.
- p*-Nitrophenyldibromobutinenecarboxylic acid (EINHORN and GEHRENBECK), 1889, A., 396.
- o*-*p*-*di*Nitrophenyl-*p*-bromophenylhydrazine (WILLGERODT and ELLON), 1891, A., 1362.
- o*-Nitrophenyl- $\beta$ -bromopropionic acid and its derivatives (EINHORN), 1884, A., 65.
- m*-Nitrophenyl- $\beta$ -bromopropionic acid (PRAUSNITZ), 1884, A., 1175.
- Nitrophenyl- $\beta$ -bromoisosuccinic acids, *o*- and *p*- (STUART), 1886, T., 363, 362.
- Nitrophenyldibromoisosuccinic acids, *m*- and *p*- (STUART), 1886, T., 361.
- Nitrophenylbutinene- $\omega$ -carboxylic acids (EINHORN and GEHRENBECK), 1889, A., 271, 396; 1890, A., 162.
- p*-Nitrophenylisobutyric acid (EDELEANU), 1888, T., 558.
- o*-*p*-*di*Nitrophenyl-*m*-chlorophenylhydrazine (WILLGERODT and MÜHE), 1892, A., 454.
- o*-*p*-*di*Nitrophenyl-*p*-chlorophenylhydrazine (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 906.
- o*-Nitrophenyleinnamic acid (OGLIARO-TODARO and ROSINI), 1891, A., 214.
- Nitrophenylcitrazonazide (MICHAEL), 1886, A., 699.
- o*-*p*-*di*Nitrophenylconiine (LELLMANN and JUST), 1891, A., 1245.
- m*-Nitrophenylcrotonaldehyde (V. MILLER and KINKELIN), 1886, A., 560.  
base from (V. MILLER and KINKELIN), 1886, A., 701.  
product of the reduction of (V. MILLER and KINKELIN), 1886, A., 799.
- m*-Nitrophenylcrotonic acid (V. MILLER and ROHDE), 1890, A., 1140.
- p*-Nitrophenyldehydrohexonecarboxylic acid (PERKIN), 1887, T., 736.
- $\beta$ -*p*-Nitrophenyldi-*p*-acetamidoditolylmethane (BISCHLER), 1889, A., 132.
- m*-Nitrophenyldianethoilmethane (DE VARDA), 1891, A., 1347.
- m*-Nitrophenyldi-*o*-cresolmethane (SIBONI), 1892, A., 621.
- Nitrophenyldihydroxyphenylmethanedicarboxylic acids, *o*-, *m*- and *p*- (DE VARDA), 1892, A., 621.
- m*-Nitrophenyldiocrinolmethane and diphloroglucinolmethane (BERTONI), 1891, A., 1378.
- Nitrophenyldipiperidyls, *p*-mono- and *o*-*p*-*di*- (LELLMANN and JUST), 1891, A., 1245.
- p*-Nitrophenyldiquinolylmethane (EINHORN), 1886, A., 720.
- m*-Nitrophenyldiorescinylmethane (DE VARDA and ZENONI), 1891, A., 1346.
- di*Nitrophenyldithienyl (RENARD), 1890, A., 1421.
- m*-Nitrophenylditolylmethane (TSCHACHER), 1887, A., 44; 1888, A., 373.
- di*Nitro-*m*-phenylenediamine [m.p. 250°] (BARR), 1888, A., 823.
- di*Nitro-*m*-phenylenediamine [m.p. 300°] (NIETZKI and HAGENBACH), 1887, A., 477.
- tri*Nitro-*m*-phenylenediamine (NÖLTING and COLLIN), 1884, A., 1004; (BARR), 1888, A., 823.
- tri*Nitro-*m*-phenylenedimethyldinitramine (VAN ROMBURGH), 1888, A., 1079, 1185.
- Nitrophenylene-ethenylamidine (HEIM), 1888, A., 1097.
- di*Nitrophenylenehydroxylamine (WILLGERODT), 1892, A., 594.
- Nitrophenylene- $\beta$ -naphthylethenyldiamine (HEIM), 1888, A., 488.
- o*-Nitrophenylethyl salicylate (*salicyl-ethylene nitrophenol ether*) (WAGNER), 1884, A., 436.
- Nitrophenylethyl nitrosamine (MELDOLA and STREATFEILD), 1886, T., 631.
- Nitrophenylethylurethane (STEUDERMANN), 1888, A., 802.
- a*-*p*-Nitrophenylfurfuracrylonitrile (FREUND and IMMERWAHR), 1890, A., 1408.
- Nitrophenylglycidic acid, *o*- and *p*- (LIPP), 1887, A., 142.
- Nitrophenylglycollic acid. See Mandelic acid, nitro-.
- Nitrophenylglyoxylic hydrazones, *o*- and *m*- (FEHLIN), 1890, A., 1117.
- Nitrophenylhydrazine. See Phenylhydrazine.
- 5-Nitrophenylhydrazine-*o*-sulphonic acid (LIMPRICHT), 1885, A., 1216.
- o*-Nitrophenylhydrazine-*p*-sulphonic acid (NIETZKI and LERCH), 1889, A., 144; (LERCH), 1889, A., 881.
- 4:6-*di*Nitrophenyl-1:2-hydroxylamine (WILLGERODT), 1891, A., 688; 1892, A., 594.

- o*-Nitrophenylic benzoate, reduction of (BÖTTCHER), 1885, A., 658.
- Nitrophenylic benzoates (NEUMANN), 1886, A., 350, 939; 1887, A., 254.
- di*Nitrophenylic carbonate (LÖWENBERG), 1886, A., 789.
- tri-p*-Nitrophenylic cyanurate (OTTO), 1887, A., 1033.
- o*-Nitrophenylic diphenylcarbamate (LELLMANN and BONHÖFFER), 1887, A., 936.
- Nitrophenylic diphenylcarbamates (LELLMANN and BENZ), 1891, A., 1215.
- o*-Nitrophenylic ethylic carbonate (BENDER), 1887, A., 37.
- Nitrophenylic orthoformate, tribasic (WEDDIGE), 1883, A., 340.
- Nitrophenylic nitrobenzoates (NEUMANN), 1886, A., 350, 939; 1887, A., 254.
- Nitrophenylic oxides, *o*- and *p*-, of *d*initrophenol and of picric acid (WILLGERODT and HUETLIN), 1884, A., 1328.
- Nitrophenylic phenylcarbamate (GUMPERT), 1886, A., 342.
- Nitrophenylic phenylmethylcarbamates (LELLMANN and BENZ), 1891, A., 1214.
- p*-Nitrophenylic phosphate (RAFF), 1884, A., 1337.
- di*Nitrophenylic sulphide (*tetranitrodiphenylic sulphide*) (AUSTEN and SMITH), 1886, A., 693.
- m*-Nitrophenylic disulphide (LEUCKART), 1890, A., 604.
- p*-Nitrophenylic disulphide (WILLGERODT), 1885, A., 519.
- α-di*Nitrophenylic thiobenzoate (WILLGERODT), 1885, A., 519.
- di*Nitrophenylic thiocyanate (AUSTEN and SMITH), 1886, A., 693.
- Nitro-1'-phenylindazine-3'-carboxylic acid, action of stannous chloride on (SCHULHÖFER), 1891, A., 1231.
- Nitro-1'-phenyl-ψ-indazine-3'-carboxylic acid (MEYER), 1889, A., 517.
- m*-Nitrophenylizenedihydroxytartaric acid (BISCHLER and BRODSKY), 1890, A., 151.
- Nitrophenyl-*α*-lactic acid, nitrate of (ERLENMEYER and LIPP), 1883, A., 993.
- Nitrophenyl-*β*-lactic acid. See *β*-Hydroxyphenylpropionic acid.
- Nitro-*β*-phenyllactic methyl ketones. See Nitro-*β*-hydroxypropionyl methyl ketone.
- o*-Nitrophenylmethaneazobenzene (PAAL and BODEWIG), 1892, A., 1456.
- az-p*-Nitrophenyl-*ald*-methyl-naphthatriazine (MELDOLA and FORSTER), 1891, T., 697, 712.
- 2:3:4:6-*tetra*Nitrophenylmethyl-nitramine, and its conversion into *m*-phenylenediamine derivatives (VAN ROMBURGH), 1889, A., 1154.
- p*-Nitrophenylmethylnitrosamine (FISCHER and HEPP), 1887, A., 244; (MELDOLA and SALMON), 1888, T., 775.
- μ-m*-Nitrophenyl-*β*-methyloxazoline (ELFELDT), 1892, A., 214.
- o*:*p-di*Nitrophenyl-*α*-methylpiperidine (LELLMANN and JUST), 1891, A., 1245.
- Nitrophenyl-*β*-methylpiperidine, *p-mono*- and *o:p-di*- (LELLMANN and BÜTTNER), 1890, A., 1003.
- 4-Nitro-1-phenyl-3-methylpyrazolone (KNORR), 1884, A., 302, 1153, 1378; 1887, A., 602; (KNORR and DUDEN), 1892, A., 731.
- m*-Nitro-2'-phenyl-3'-methylquinoline (V. MILLER and KINKELIN), 1886, A., 561.
- 2:4-*di*Nitrophenyl-*β*-naphthol (ERNST), 1891, A., 300.
- 2:4-*di*Nitrophenyl-*α*-naphthylamine (HEIM), 1888, A., 488, 1096.
- 2:4-*di*Nitrophenyl-*β*-naphthylamine (HEIM), 1888, A., 488; (ERNST), 1891, A., 300.
- o:p-di*Nitrophenyl-*α*- and -*β*-naphthylhydrazines (WILLGERODT and SCHULZ), 1891, A., 572.
- Nitrophenylnitrobenzenesulphazides, *m*- and *p*- (LIMPRICHT), 1887, A., 723.
- p*-Nitrophenyl-*o:p-di*nitrophenylcarbonyl cyanide (V. RICHTER), 1888, A., 1186.
- Nitrophenyl-*o*- and -*p*-nitrophenyl oxides, *di*- and *tri*- (WILLGERODT and HUETLIN), 1884, A., 1328.
- Nitrophenyl-*ald-m*- and -*p*-nitrophenyl-naphthatriazines, *az-p*- and *m*- (MELDOLA and FORSTER), 1891, T., 693, 694.
- p*-Nitrophenylnitropropionic acid, derivatives of (FRIEDLÄNDER and MÄHLY), 1885, A., 1137.
- m*-Nitrophenyl-*o*-nitro-*p*-tolylthiocarbamide (STEUDEMANN), 1884, A., 307.
- Nitro-*n*-phenylosotriazolecarboxylic acid (BALTZER and V. PECHMANN), 1891, A., 1116.
- μ-m*-Nitrophenyloxazoline (ELFELDT), 1892, A., 213.
- Nitro-*β*-phenyloxyacrylic acids. See Nitrophenylglycidic acids.
- Nitrophenylparaconic acids (SALOMONSON), 1885, A., 1224; 1888, A., 480.
- μ-m*-Nitrophenylpentoxazoline (ELFELDT), 1892, A., 214.
- m*-Nitrophenylphenacyl oxide (LELLMANN and DONNER), 1890, A., 523.

- Nitrophenyl-aldophenylnaphthatriazines.** See Nitrodiphenylnaphthatriazine.
- p*-Nitrophenylpiperazine** (SCHMIDT and WICHMANN), 1892, A., 210.
- Nitrophenylpropylamines, *di*- and *tri*-** (VAN ROMBURGH), 1886, A., 455.
- di*Nitrophenylpropylene.** See *di*Nitrallylbenzene.
- tri*Nitrophenylpropylnitramine** (VAN ROMBURGH), 1886, A., 455.
- m*-Nitro-2'-phenylquinoline** (V. MILLER and KINKELIN), 1885, A., 1144.
- di*Nitrophenylosaniline** (NÖLTING), 1883, A., 54.
- di*Nitrophenylsalicylic acid** (ARBENZ), 1890, A., 893.
- m*-Nitrophenylsantoninmethane** (BERTONI), 1892, A., 622.
- m*-Nitro-2'-phenyltetrahydroquinoline** (V. MILLER and KINKELIN), 1885, A., 1145.
- o*-Nitrophenyltetra-*p*-hydroxydiphenylmethane** (SIBONI), 1892, A., 621.
- p*-Nitrophenyltetra-*m*-hydroxydiphenylmethane** (SIBONI), 1892, A., 621.
- Nitrophenyltetra-*p*-hydroxydiphenylmethanes, *m*- and *p*-** (BERTONI and ZENONI), 1892, A., 620.
- Nitrophenyltetrazolecarboxylic acid** (BLADIN), 1892, A., 1009.
- m*-Nitrophenylthiocarbimide and its derivatives** (STEUDEMANN), 1883, A., 801; 1884, A., 306.
- Nitrophenylthiourethane** (LOSANITSCH), 1883, A., 582.
- o*-Nitrophenyl-*p*-toluidine** (SCHÖPFF), 1890, A., 1113.
- tri*Nitrophenyltoluidine.** See *tri*Nitr-anilidotoluene.
- Nitrophenyl-*p*-tolylthiocarbamides, *o*- and *m*-** (STEUDEMANN), 1884, A., 307.
- Nitrophenyltriazolecarboxylic acid** (BLADIN), 1892, A., 735.
- m*-Nitrophenyltrimethylammonium hydroxide, bromide and *m*-nitrophenoxide** (STAEDEL and BAUER), 1886, A., 941.
- p*-Nitrophenylurethane and its derivatives** (HAGER), 1885, A., 149.
- o*:*p*-*di*Nitrophenylurethane** (HAGER), 1885, A., 150; (VAN ROMBURGH), 1892, A., 712.
- p*-Nitrophenylvaleric acid** (LELLMANN and SCHLEICH), 1887, A., 490.
- tri*Nitrophenylglucinol** (BENEDIKT and HAZURA), 1885, A., 554.
- di*Nitrophthalic acids, 5:3- and 6:3-** (MERZ and WEITH), 1883, A., 344.
- 4-Nitroisophthalic acid** (CLAUS and WYNDHAM), 1889, A., 142; (NOYES), 1889, A., 395.
- di*Nitroisophthalic acid** (CLAUS and WYNDHAM), 1889, A., 142.
- Nitrophthalo-*m*-isocymidide** (KELBE and WARTH), 1884, A., 47.
- Nitropiperidine** (FRANCHIMONT and KLOBBE), 1889, A., 1145.
- o*-Nitropiperonalphenylhydrazone** (HABER), 1891, A., 706.
- 6-Nitropiperonylacrylic acid and its salts** (PERKIN), 1891, T., 153.
- 2-Nitropiperonylnitrile** (HABER), 1891, A., 706.
- o*-Nitropiperonylvinyl methyl ketone** (HABER), 1891, A., 705.
- Nitropropanes.** See Propane.
- di*Nitropropane-*p*-bisazoanisole** (KEPPLER and MEYER), 1892, A., 1062.
- di*Nitropropanebisazo-benzene and -toluene** (KEPPLER and MEYER), 1892, A., 1062.
- Nitropropenylbenzoic acid, salts of** (WIDMAN), 1884, A., 317.
- o*-Nitropropionanilide** (SMITH), 1885, A., 524.
- m*-Nitropropylbenzoic acid.** See *n*-Cumic acid, nitro-.
- Nitroisopropylcinnamic acid.** See Cumylacrylic acid, nitro-.
- Nitropropylene** (MEYER), 1892, A., 575; (ASKENASY and MEYER), 1892, A., 1062.
- Nitropropylene-*p*-azoanisole, nitropropyleneazobenzene, nitropropylene-*m*-azobenzene, nitropropylene-azo-*m*-bromobenzene, nitropropyleneazo- $\psi$ -cumene, nitropropylene-*p*-azophenetole, and nitropropylene-*o*- and -*p*-azotoluenes** (ASKENASY and MEYER), 1892, A., 1063, 1064.
- Nitropropyleneazobenzene** (MEYER), 1892, A., 575.
- di*Nitropropylthiophen** (RUFFI), 1887, A., 804.
- Nitroprussides** (NORTON), 1888, A., 932; (PRUD'HOMME), 1890, A., 1387.
- formation of, without the use of nitric acid (JENSEN), 1885, A., 739.
- preparation of (PRUD'HOMME), 1891, A., 410.
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- 3-Nitropyrocatechol, behaviour of, with mordants** (V. KOSTANECKI), 1889, A., 868.
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- 2:5-*di*Nitropyromellitic acid, and its ethylic salt (NEF), 1886, A., 64; 1888, T., 439.
- Nitropyromucic acid (PRIEBE), 1885, A., 971.
- di*Nitropyrroline (CIAMICIAN and SILBER), 1885, A., 993; 1886, A., 718.
- Nitropyrroline- $\alpha$ -carboxylic acids,  $\alpha$ - and  $\beta$ - (ANDERLINI), 1890, A., 66.
- Nitropyrrolinephthalide (ANDERLINI), 1889, A., 58.
- Nitropyrrylene dimethyl ketone (CIAMICIAN and SILBER), 1886, A., 718.
- o*-Nitropyruvaldehydephenylhydrazone (BAMBERGER), 1885, A., 157.
- p*-Nitropyrvic acid phenylhydrazone (FISCHER and ACH), 1890, A., 41.
- 2:5-*di*Nitroquinol (NIETZKI), 1883, A., 465.
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- tri*Nitroquinol, derivatives of (NIETZKI and KAUFMANN), 1892, A., 314.
- Nitroquinols, diethyl derivatives of (NIETZKI), 1883, A., 466; (NIETZKI and KAUFMANN), 1892, A., 314.
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- Nitroquinoline-2'-carboxylic acid (DOEBNER and v. MILLER), 1883, A., 602.
- Nitroquinone, Etard's, probable non-existence of (HENDERSON and CAMPBELL), 1890, T., 255.
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- Nitroresorcinoldisulphonic acid (ULZER), 1889, A., 510.
- Nitroresorcinolsulphonic acid and its derivatives (HAZURA), 1883, A., 1114.
- tetra*Nitrosolic acid (ACKERMANN), 1884, A., 1339.
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- 3- and 5-Nitrosalicylic acids (SMITH and KNER), 1886, A., 704.
- Nitrosamines (FISCHER and HEPP), 1887, A., 729, 1114.
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- Nitrosilicic acid, existence of (ROUSSEAU and TITE), 1892, A., 684.
- Nitrosites and their derivatives (WALLACH), 1888, A., 37.
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- Nitrosoacetone (v. PECHMANN), 1887, A., 1104.
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- di*Nitrosoacetone (v. PECHMANN and WEHSARG), 1889, A., 34.
- Nitrosoacetonephenylhydrazones, *mono*- and *di*- (v. PECHMANN and WEHSARG), 1889, A., 47, 34.
- di*Nitrosoacetonephenylmethylhydrazones (v. PECHMANN and WEHSARG), 1889, A., 48.
- Nitrosoallylacetone (OTTE and v. PECHMANN), 1889, A., 1139.
- Nitrosoamidoethylpiperonylic anhydride (PERKIN), 1890, T., 1018.
- Nitroso- $\alpha$ -anilidopropionic acid (REISERT), 1892, A., 1456.
- p*-Nitrosoaniline (FISCHER and HEPP), 1887, A., 1114; 1888, A., 460.
- action of phenylhydrazine on (FISCHER and WACKER), 1888, A., 1286.
- phenylmethylhydrazones of (FISCHER and WACKER), 1889, A., 702.
- p*-Nitrosoanisidine (BEST), 1890, A., 608.
- Nitrosoanthrone (GIMBEL), 1887, A., 675.
- action of nitric acid on (PERKIN), 1891, T., 641.
- $\psi$ -Nitrosoanthrone (PERKIN), 1891, T., 645.
- Nitrosoazo-compounds, constitution of (WILLGERODT), 1892, A., 1321, 1453.
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- Nitrosobarbituric acid (CERESOLE), 1883, A., 913.
- p*-*di*Nitrosobenzene (NIETZKI and KEHRMANN), 1887, A., 575.
- Nitrosobenzeneazo-. See Benzeneazo-.
- Nitrosobenzenesulphonic acid, preparation and salts of (LIMPRICHT), 1892, A., 475.
- di*Nitrosobenzeylamidine (LOSSEN and MIERAU), 1888, A., 684.
- di*Nitrosobenzeylamidinebenzenylamidine (LOSSEN and MIERAU), 1888, A., 684.
- Nitrosobenzylacetone (CERESOLE), 1883, A., 41.
- Nitroso-*o*-benzylamidoacetophenone (v. BAEYER), 1884, A., 1021.
- p*-Nitrosobenzylaniline (FISCHER and HEPP), 1890, A., 614; (BOEDDINGHAUS), 1891, A., 1205.
- Nitroso- $\beta$ -benzylhydroxylamine (BEHREND and KÖNIG), 1891, A., 1034.
- p*-Nitrosobenzylmethylaniline (BOEDDINGHAUS), 1891, A., 1206.

- Nitroso- $\beta$ -benzylpiperidone** (ASCHAN), 1891, A., 467.
- p*-Nitrosobenzyl-*o*- and -*m*-toluidines** (BOEDDINGHAUS), 1891, A., 1206.
- p*-Nitrosoisobutylaniline** (WACKER), 1888, A., 466.
- Nitrosocamphor** (CLAISEN and MANASSE), 1889, A., 619.  
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- Nitroso-compounds**, preparation of (WILLGERODT), 1891, A., 688.  
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- di*-Nitroso-*n*-cumene** (KEHRMANN and MESSINGER), 1891, A., 298.
- Nitroso- $\psi$ -cumylazoresoreinol** (v. KOSTANECKI), 1889, A., 137.
- Nitrosocyanacetic acid** (WOLFF and GANS), 1891, A., 897.
- Nitrosocyanides** (PAVEL), 1883, A., 297.
- Nitrosocyanobutyric acid** (WOLFF), 1891, A., 418.
- Nitrosodialkylanilines**, periodides of (DAFERT), 1883, A., 979.
- Nitrosodibenzoylmethane** (v. PECHMANN), 1889, A., 712; (DE NEUFVILLE and v. PECHMANN), 1891, A., 318.
- Nitrosodibenzylamine** (WALDER), 1887, A., 247.
- Nitrosodibenzylhydroxylamine** (WALDER), 1887, A., 246.
- Nitroso-1:3-diethoxybenzene** (KRAUS), 1892, A., 44.
- Nitroso-*p*-diethoxydiphenylpiperazine** (BISCHOFF and TRAPESONZJANZ), 1890, A., 1332.
- Nitrosodiethyl ketones** (CLAISEN and MANASSE), 1889, A., 585.
- Nitrosodihethylanilinecyanhydrin** (LIPPMANN and FLEISSNER), 1885, A., 1213.
- Nitrosodiethylene** (GIBBS and REICHERT), 1891, A., 1393.
- 1:3-*di*-Nitroso-2:4-dihydroxytoluene** (v. KOSTANECKI), 1888, A., 263.
- Nitroso-*p*-dimethylamidobenzoic acid** and its derivatives (BISCHOFF), 1889, A., 511.
- Nitrosodimethylamidobenzophenone** (BISCHOFF), 1889, A., 511.
- Nitrosodimethyl-*m*-amidophenol** (MÖHLAU), 1892, A., 887.
- Nitrosodimethylaniline**. See Dimethylaniline.
- Nitroso-2:5-dimethylpyrrolidine** (TAFEL and NEUGEBAUER), 1890, A., 1001.
- Nitrosodi- $\beta$ -naphthylamine** (RIS), 1888, A., 58.
- Nitroso- $\alpha$ -dipentenitrolaniline** (WALLACH), 1892, A., 1348.
- p*-Nitrosodiphenylamine** (FISCHER and HEPP), 1887, A., 244; (IKUTA), 1888, A., 467.
- p*-Nitrosodiphenylmethylaniline** (FISCHER and HEPP), 1890, A., 614.
- p*-Nitrosodiphenyl-*m*-phenylenediamine** (FISCHER and HEPP), 1890, A., 613.
- Nitrosodipropylamine** (*dipropylnitrosamine*) (VINCENT), 1886, A., 1005.
- Nitrosodipropylaniline cyanhydrin** (MANDL), 1886, A., 793.
- Nitrosodipyromeconic acid** (OST), 1883, A., 793.
- di*-Nitrosoditoluene** (BEHREND and KÖNIG), 1890, A., 1122.
- Nitrosodi-*p*-tolyl-*di*amido-*o*-diazothiole** (HECTOR), 1890, A., 527.
- Nitrosoethoxyethylphenol** (KRAUS), 1892, A., 45.
- $\alpha$ -Nitroso- $\beta$ -ethoxynaphthalene** (v. ILINSKI), 1886, A., 474.
- Nitrosoethyl-*o*-amidocinnamic acid** (FISCHER and KUZEL), 1884, A., 440.
- Nitrosoethylamido- $\beta$ -phenylpropionic acid** (FISCHER and KUZEL), 1884, A., 1132.
- 1:4-Nitrosoethylaniline** (FISCHER and HEPP), 1887, A., 244.
- Nitrosoethylic alcohol**, oxime of (ALEXÉEFF), 1886, A., 999.
- p*-Nitrosoethyl-*o*-toluidine** (FISCHER and HEPP), 1887, A., 244.
- $\alpha$ -Nitroglutaric acid** (WOLFF), 1891, A., 419.
- p*-Nitrosoguaiacol** (BEST), 1890, A., 608.
- Nitrosoguvacine** (JAHNS), 1892, A., 740.
- iso*-Nitrosohesperidene**. See Carvoxime.
- Nitrosohippurylhydrazine** (CURTIUS), 1891, A., 57.
- Nitrosohydrazonhippuric acid** (CURTIUS), 1891, A., 57.

- 3'-Nitroso-4'-hydroxycarbostryl (v. BAEYER and HOMOLKA), 1884, A., 78, 1029.
- p*-Nitroso-*m*-hydroxydiphenylamine (KÖHLER), 1888, A., 587.
- $\beta_1$ -Nitroso- $\gamma_1$ -hydroxy- $\alpha_1$ -ketojuloline (KAYSER and REISSERT), 1892, A., 884.
- Nitroso-4-hydroxy-3-methylquinoline (NÖLTING and TRAUTMANN), 1891, A., 326.
- Nitroso-2'-hydroxy-4'-methyltetrahydroquinoline (FISCHER and WITTMACK), 1884, A., 1052.
- Nitroso-*m*-hydroxy-*p*-tolylamine (HATSCHKE and ZEGA), 1886, A., 455.
- o*-Nitroso-3-hydroxyquinoline (MATHÉUS), 1888, A., 965.
- $\mu$ -Nitrosoimidothiazoline (NÄF), 1891, A., 1515.
- Nitrosoindole (ZATTI and FERRATINI), 1890, A., 1293.  
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- Nitrosoindoxyl (v. BAEYER), 1883, A., 1131.
- Nitrosoketones (TREADWELL and WESTENBERGER), 1883, A., 572; (CLAISEN), 1887, A., 463; (CLAISEN and MANASSE), 1887, A., 944.  
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- iso*Nitrosoketones. See Ketoximes.
- iso*Nitrosolimonene. See Carvoxime.
- Nitrosolimonenenitrolaniline (WALLACH), 1892, A., 1348.
- Nitrosomalonic acid, constitution of (MEYER and MÜLLER), 1883, A., 790.
- Nitrosomethyl *isobutenyl* ketone (CLAISEN and MANASSE), 1889, A., 585.
- Nitrosomethyl ethyl ketone (CERESOLE), 1883, A., 41.
- Nitrosomethyl propyl ketone (CLAISEN and MANASSE), 1889, A., 585.
- o*-Nitrosomethylamidobenzamide (FINGER), 1888, A., 948.
- Nitroso-*o*-methylamidobenzene (MEYER), 1886, A., 63.
- Nitrosomethylamidophenylethane (HEUMANN and WIERNIK), 1887, A., 1039.
- 1:4-Nitrosomethylaniline (FISCHER and HEPP), 1887, A., 244.  
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- p*-Nitrosomethyl-*o*-anisidine (BEST), 1890, A., 607.
- Nitrosomethylcarbamide (v. BRÜNING), 1888, A., 936.
- n*-Nitroso- $\mu$ -methylimidothiazoline (NÄF), 1891, A., 1516.
- $\mu$ -Nitroso-*n*-methylimidothiazoline (NÄF), 1891, A., 1516.
- Nitrosomethyl-*o*-nitro-*p*-diazobenzene chloride (*o*-nitro- $\omega$ -nitroso-*p*-diazotoluene chloride) (MEYER), 1886, A., 63.
- Nitroso-*p*-methyloxindole (MEYER), 1884, A., 48.
- 5-Nitrosomethyl-*o*-toluidine (KOCK), 1888, A., 469.
- 6-Nitrosomethyl-*o*-xylylidine (FISCHER and HEPP), 1890, A., 913; (MENTON), 1891, A., 1204.
- p*-Nitrosomethyl-*p*-xylylidine (PFLUG), 1890, A., 607.
- 1:2-*di*Nitrosonaphthalene (v. ILINSKI), 1886, A., 472.
- 1:4-*di*Nitrosonaphthalene (NIETZKI and GUTERMANN), 1888, A., 471.
- Nitrosonaphtharesorcinols, *mono*- and *di*- (v. KOSTANECKI), 1889, A., 887.
- Nitrosonaphthol. See Naphthaquinone-oxime.
- 2-Nitroso- $\alpha$ -naphthol-4-sulphonic acid (WITT and KAUFMANN), 1892, A., 195.
- Nitroso- $\beta$ -naphthol-3'- and -4-sulphonic acids, 1- and 2-, metallic salts of (HOFFMANN), 1892, A., 346.
- 2-Nitroso- $\alpha$ -naphthylamine (HARDEN), 1890, A., 630.
- 1-Nitroso- $\beta$ -naphthylamine (v. ILINSKI), 1884, A., 1035; (HARDEN), 1890, A., 630.
- $\alpha$ -Nitroso- $\beta$ -naphthylethylamine (FISCHER and HEPP), 1887, A., 1114; 1888, A., 461.
- $\beta$ -Nitroso- $\alpha$ -naphthylethylamine (HARDEN), 1890, A., 631.
- p*-Nitroso- $\alpha$ -naphthylethylamine (KOCK), 1888, A., 469.
- Nitroso-oreinol (KRAEMER), 1884, A., 1341.
- di*Nitroso-oreinol (GOLDSCHMIDT and STRAUSS), 1887, A., 808.
- Nitroso-oxindole (GABRIEL), 1883, A., 920; (v. BAEYER), 1883, A., 1131.
- Nitroso-oxymethylquinoline. See Oxymethylquinoline.
- Nitroso-1- and -3-oxyquinoline, 2- and 4-, tinctorial properties of (v. KOSTANECKI), 1891, A., 579.
- di*Nitrosopentamethylenetetramine (GRIESS and HARROW), 1888, A., 1268.
- p*-Nitrosophenol. See Quinoneoxime.
- p*-Nitrosophenylbenzylnitrosamine (BOEDDINGHAUS), 1891, A., 1206.



- Nitroso- $\psi$ -phenylhydrazidomandelic acid** (REISSERT and KAYSER), 1891, A., 439.
- Nitrosophenylic benzoate** (WALKER), 1884, A., 1003.
- Nitroso-2'-phenylindole** (FISCHER and SCHMIDT), 1888, A., 698.
- p*-Nitrosophenylmethylnitrosamine** (FISCHER and HEPP), 1887, A., 244.
- Nitroso-2'-phenyltetrahydroquinoline** (DOEBNER and v. MILLER), 1886, A., 722.
- p*-Nitrosophenyl-*p*-toluidine** (REICHOLD), 1890, A., 609.
- Nitrosophthalimidine** (GRAEBE), 1885, A., 166.
- di*Nitrosopiperazine** (LADENBURG), 1891, A., 1333.
- tri*Nitropropane** (v. PECHMANN and WEHSARG), 1889, A., 34.
- $\beta$ -Nitrosopropionic acid** (v. PECHMANN), 1891, A., 1458; (HANTZSCH), 1892, A., 1069.
- Nitrosopropiophenone** (v. PECHMANN and MÜLLER), 1888, A., 1088; (CLAISEN and MANASSE), 1889, A., 585; (GUDEMAN), 1889, A., 613.
- p*-Nitrosopropylaniline and nitrosamine of** (WACKER), 1888, A., 466.
- 4-Nitrosoresorcinol, salts of** (FÈVRE), 1883, A., 733; (WALKER), 1884, A., 1003.
- di*Nitrosoresorcinol** (GOLDSCHMIDT and STRAUSS), 1887, A., 808.
- Nitrosoresorcinoldisulphonic acid** (ULZER), 1889, A., 510.
- Nitrosoisostyrychnic acid** (TAFEL), 1892, A., 1012.
- Nitrososulphides** (PAVEL), 1883, A., 297.
- Nitrososulphonic acids, preparation of** (LIMPRICHT), 1892, A., 475.
- Nitrosoterpene** (GOLDSCHMIDT and ZÜRNER), 1885, A., 1210.
- p*-Nitroso- $\alpha$ -tetrahydronaphthylethylamine hydrochloride** (BAMBERGER and HELWIG), 1889, A., 892.
- Nitrosotetrahydroquinoline, *p*-mono- and *di*-** (ZIEGLER), 1888, A., 610.
- Nitrosotetramethylamidobenzophenone, salts of** (BISCHOFF), 1889, A., 511.
- Nitrosotetramethylphenylenediamine hydrochloride, and derivatives of** (WITT), 1885, A., 782.
- Nitrosothiomethylaniline and nitrosothionylmethylaniline** (MICHAELIS and GODCHAUX), 1891, A., 74.
- 6-Nitrosothymol** (SUTKOWSKI), 1887, A., 41.
- action of hydroxylamine on (KEHRMANN and MESSINGER), 1890, A., 1403.
- 2:5-*di*Nitrosotoluene** (MEHNE), 1888, A., 463; (NIETZKI and GUITERMANN), 1888, A., 471.
- $\omega$ -Nitroso-*o*-toluidine** (MEYER), 1886, A., 63.
- Nitrosotoluidines** (MEHNE), 1888, A., 463.
- Nitrosotriacetone** (FISCHER), 1884, A., 1290.
- Nitrosotriphenyltriamidobenzene** (MINUNNI), 1891, A., 190.
- Nitrosotriphenylmethylaniline** (ELBS), 1884, A., 1031.
- Nitrosotriphenylmethyl-*p*-toluidine** (WITTICH), 1884, A., 1032.
- Nitrosotri-*p*-tolyltriamidobenzene** (MINUNNI), 1891, A., 190.
- 2:5-*di*Nitroso-*p*-xylene** (PFLUG), 1890, A., 607.
- di*Nitroso-*m*-xylenecarboxylic acid** (CLAUS), 1890, A., 980.
- 5-Nitroso-*p*-xylenol.** See *p*-Xyloquinoneoxime.
- di*Nitroso-*m*-xylylglyoxylic acid** (CLAUS), 1890, A., 979.
- Nitrostilbazole.** See Nitro- $\alpha$ -styrylpyridine.
- Nitrostilbene** (ANSCHÜTZ and ROMIG), 1885, A., 768.
- o*-*di*Nitrostilbene** (BISCHOFF), 1888, A., 1094.
- p*-*di*Nitrostilbene bromide** (ELBS and BAUER), 1887, A., 151.
- Nitrostrychnic acid** (LOEBISCH and SCHOOP), 1886, A., 814.
- Nitrostrychnine** (LOEBISCH and SCHOOP), 1886, A., 267.
- di*Nitrostrychnine and its salts** (HANNOT), 1883, A., 669.
- Nitrostyrene.** See Styrene.
- o*-Nitrostyryl methyl ketone** (v. BAEYER and DREWSSEN), 1883, A., 341; (FISCHER and KUZEL), 1883, A., 587.
- p*-Nitrostyryl methyl ketone** (v. BAEYER and BECKER), 1883, A., 1120.
- o*-Nitrostyrylacrylic acid** (DIEHL and EINHORN), 1885, A., 1222.
- m*-Nitro- $\alpha$ -styrylpyridine and its reduction products** (SCHUFTAN), 1890, A., 1437.
- o*-Nitrostyrylvinyl methyl ketone** (DIEHL and EINHORN), 1885, A., 1222.
- p*-Nitrostyrylvinyl methyl ketone** (EINHORN and GEHRENBEEK), 1890, A., 162.
- p*-Nitro-*o*-sulphamidobenzoic acid** (NOYES and WILEY), 1889, A., 711.

- Nitrosulphates**, decomposition and properties of (DIVERS and HAGA), 1885, T., 203.
- Pelouze's, conversion of, into hyp-nitrites and sulphites (DIVERS and HAGA), 1885, T., 203; P., 25.
- p*-**Nitro-*o*-sulphobenzoic acid** (KASTLE), 1889, A., 711; (HAUSSER), 1892, A., 479.
- Nitrosulphotolnic acid** (LIMPRICHT), 1885, A., 1234.
- Nitrosyl bromide** (*nitrogen oxybromide*) (FROELICH), 1884, A., 1258.
- Nitrosyl chloride** (*nitrogen oxychloride*), absorption spectrum of (MAGNANINI), 1890, A., 97.
- specific gravity of (GEUTHER), 1888, A., 785.
- action of heat on (SUDBOROUGH and MILLAR), 1890, P., 167; 1891, T., 73, 270.
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- Nitrosyl sulphate** (*nitrogen oxysulphate*), preparation of (RAMSAY and CUNDALL), 1885, T., 197.
- Nitrotartrazinesulphonic acid**, sodium derivative of (LERCH), 1889, A., 881.
- Nitroterebenthene** (PESCI and BETTELLI), 1887, A., 272; (PESCI), 1889, A., 157.
- derivatives of, action of hydrogen on (TANRET), 1887, A., 675.
- Nitroterephthalaldehyde**, action of potassium cyanide on (HOMOLKA and Löw), 1886, A., 701.
- di*-**Nitrotetrahydro-quinoline** and -quinolylcarbamide (SIMON-THOMAS), 1892, A., 726.
- p*-**Nitrotetrahydroxytoluene** (KEHRMANN and BRASCH), 1889, A., 970.
- Nitrotetramethyldiamidodiphenylmethane** (VAN ROMBURGH), 1889, A., 146.
- p*-**Nitrotetramethyldiamidodiphenyltolylmethane** (NÖLTING), 1891, A., 727.
- di*-**Nitrotetramethylapionole** (CIAMICIAN and SILBER), 1890, A., 1295.
- tetra*-**Nitrotetraphenylpyrrolidine** (FEHRLIN), 1889, A., 623.
- tetra*-**Nitrotetraphenylsilicon** (POLIS), 1886, A., 619.
- o*-**Nitrotetrethyldiamidotriphenylmethane** (FISCHER and SCHMIDT), 1884, A., 1316.
- p*-**Nitrotetrethyldiamidotriphenylmethane** (KAESWURM), 1886, A., 553.
- Nitrothienol** (STADLER), 1885, A., 1205.
- Nitrothienylglyoxylic acid** (PETER), 1885, A., 764.
- Nitro $\delta$ thiobenzaldehydeacetic acids** (BONGARTZ), 1886, A., 937.
- Nitrothiobenzotolidine** (GATTERMANN and NEUBERG), 1892, A., 839.
- Nitrothiophen**. See Thiophen.
- Nitrothiophencarboxylic acid** (RÖMER), 1887, A., 362.
- Nitrothiophensulphonic acid** and its salts (STADLER), 1885, A., 764.
- 2:6-*di*-**Nitrothymol** (MAZZARA), 1890, A., 602, 753.
- 2:6-*di*-**Nitrothymyl acetate** and benzoate (MAZZARA), 1891, A., 47, 46.
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- 3-**Nitro-*p*-toluamide** (NIEMENTOWSKI and ROZANSKI), 1888, A., 1088; (WEISE), 1890, A., 47.
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- 2-**Nitro-*p*-toluidine-5-sulphonic acid** and its derivatives (LIMPRICHT), 1885, A., 1233; (FOTH), 1886, A., 152.
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*di*Nitro-*m*-xylalphthalide (HEILMANN), 1891, A., 201.

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- Phenyl hexyl ketone (KRAFFT), 1887, A., 253; (AUGER), 1887, A., 816.
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- Phenyl diiodobenzyl ketone (*benzoyl-phenyldiiodomethane*) (CURTIUS and LANG), 1892, A., 451.
- Phenyl mercaptan (*thiophenol*) (BIEDERMANN), 1886, A., 787.
- preparation of (STADLER), 1884, A., 1328.
- sodium salt of, action of, on ethylic chloracetate (OTTO and RÖSSING), 1891, A., 712.
- sodium salt of, behaviour of, with isobutylenic bromide (OTTO), 1890, A., 962.
- o*-amido-, and its derivatives (v. HOFMANN), 1887, A., 823, 1039.
- formation of anhydro-compounds of, from thioanilides (JACOBSON), 1886, A., 700.
- o*- and *p*-chloro- (DACCOMO), 1892, A., 308.
- p*-nitro- (WILLGERODT), 1885, A., 519; (LEUCKART), 1890, A., 604.
- d*-nitro- (AUSTEN and SMITH), 1886, A., 693.
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- Phenyl mercaptans, preparation of (LUSTIG), 1891, A., 1350.
- Phenyl mesityl ketone and its derivatives (LOUISE), 1883, A., 577; (ELBS), 1887, A., 942.
- Phenyl *o*-methoxytolyl ketone (KÖNIGS and CARL), 1892, A., 446.

- Phenyl methyl diketone** (*benzoylacetyl*; *phenyldiketopropane*) (V. PECHMANN and MÜLLER), 1888, A., 1087; 1889, A., 1170; (MANASSE), 1888, A., 1088.
- Phenyl methyl glycols**, two isomeric (ZINCKE), 1884, A., 1003.
- Phenyl methyl ketone**. See Acetophenone.
- Phenyl methyl ketoxime** (JANNY), 1883, A., 580.
- m*-nitro- (GABRIEL), 1883, A., 582.
- Phenyl methyl oxide**. See Anisoil.
- Phenyl  $\alpha$ -naphthyl ketoxime** (SPIEGLER), 1884, A., 1182; (KEGEL), 1888, A., 1307.
- Phenyl *p*-nitrobenzyl oxide** (KUMPF), 1884, A., 1005.
- Phenyl oxide**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 591.
- Phenyl pentadecyl ketone** (KRAFFT), 1887, A., 252.
- Phenyl phenylethyl ketone**. See Benzylacetophenone.
- Phenyl propyl ether**. See Propoxybenzene.
- Phenyl propyl ketone** (PERKIN), 1884, T., 181.
- Phenyl pyridyl ketone** (BERNTHSEN and METTEGANG), 1887, A., 737.
- Phenyl pyrrol ketone**. See  $\psi$ -Benzoylpyrroline.
- Phenyl tetramethylene ketone and ketoxime** (PERKIN and SINCLAIR), 1892, T., 59, 61.
- Phenyl thienyl ketone and its  $\alpha$ -oxime** (COMEY), 1884, A., 1168.
- Phenyl thienyl ketoximes** (HANTZSCH), 1890, A., 1263; 1891, A., 446.
- Phenyl thiotolyl ketone** (*phenyl methyl- $\psi$  thienyl ketone*) (ERNST), 1887, A., 238.
- Phenyl tollyl diketone**. See Methylbenzil.
- Phenyl tollyl ethylene ether** (SCHREIBER), 1891, A., 553.
- m*-**Phenyl tollyl ketone** (*methylbenzophenone*) (SENFF), 1884, A., 427.
- reduction products of (SENFF), 1884, A., 427.
- d*-nitro- (SENFF), 1884, A., 428.
- p*-**Phenyl tollyl ketone**, stereochemical isomerides of (HANTZSCH), 1891, A., 68.
- stereochemically isomeric oximes of (HANTZSCH), 1890, A., 1273.
- o*-**Phenyl tollyl ketoximes** (SMITH), 1892, A., 490.
- m*-**Phenyl tollyl ketoxime** (GOLD-SCHMIDT and STÖCKER), 1891, A., 1480.
- p*-**Phenyl tollyl ketoxime** (AÜWERS), 1890, A., 503.
- o*-**Phenyl xylyl ketone** (ELBS), 1887, A., 941.
- Phenyl *p*-xylyl ketones** (ELBS and LARSEN), 1885, A., 261; (ELBS), 1887, A., 941; (STRASSMANN), 1889, A., 883.
- $\alpha$ -**Phenyl *m*-xylyl ketone** (ELBS), 1887, A., 941.
- $\alpha$ -**Phenyl *m*-xylyl ketoximes** (SMITH), 1892, A., 490.
- Phenylacetaldehyde**, condensation of, with ammonia and ethylic acetate (JEANRENAUD), 1888, A., 965.
- action of nitric acid on (FORRER), 1884, A., 1020.
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- Phenylacetaldehydephenylhydrazone** (FISCHER and SCHMIDT), 1888, A., 699.
- Phenylacetaldoxime** (DOLLFUS), 1892, A., 1174.
- Phenylacetamide**, action of bromine on (V. HOFMANN), 1886, A., 45.
- p*-amido- (PURGOTTI), 1891, A., 562.
- p*-cyano- (MELLINGHOFF), 1890, A., 239.
- m*- and *p*-nitro- (PURGOTTI), 1891, A., 562.
- Phenylacetamidine**, and its derivatives (LUCKENBACH), 1884, A., 1134.
- Phenylacetic acid** (ANSCHÜTZ and BERNS), 1887, A., 829.
- preparation of (STAEDEL), 1886, A., 945; (ZINSSER), 1892, A., 344.
- thermochemistry of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.
- influence of, on proteid metabolism (SALKOWSKI and KOTOFF), 1888, A., 513.
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- Phenylacetic acid**, amido- (GABRIEL and BORGMANN), 1883, A., 1121.



**Phenylacetic acid**, amido-*p*-cyano- (TRAUBE), 1883, A., 193.

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*p*-cyano- (MELLINGHOFF), 1890, A., 239.

*m*-nitro- (GABRIEL and BORGMANN), 1883, A., 1121.

*o*-*p*-dinitro- (HECKMANN), 1884, A., 178.

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**Phenylacetimido-acetate** (LUCKENBACH), 1884, A., 1134.

**Phenylacetimidoethyl ether**, and its hydrochloride (LUCKENBACH), 1884, A., 1134.

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**Phenylacetobromamide** (HOOGWERFF and VAN DORP), 1888, A., 1195.

**Phenylaceto-*m*-chloranilide** (BISCHLER), 1892, A., 1465.

**Phenylaceto-diethylamide** and -di-phenylamide (HAUSSKNECHT), 1889, A., 506.

**Phenylacetodiphenylhydrazide** (BÖLSING and TAFEL), 1892, A., 981.

**Phenylacetonitrile** (*benzyllic cyanide*), heats of combustion and formation of (BERTHELOT and PETIT), 1889, A., 812.

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**Phenylacetonitrile** (*benzyllic cyanide*), *m*-amido- (FRIEDLÄNDER), 1884, A., 737; (SALKOWSKI), 1884, A., 1176.

**Phenylacetonitrile** (*benzyllic cyanide*), *p*-amido-, and its salts (FRIEDLÄNDER and MÄHLV), 1883, A., 919; (FRIEDLÄNDER), 1884, A., 737. chloro- (MICHAEL and JEANPRÊTRE), 1892, A., 1088.

*o*-cyano- (GABRIEL and OTTO), 1887, A., 1035.

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*m*-cyano- (REINGLASS), 1891, A., 1344.

*p*-cyano- (MELLINGHOFF), 1890, A., 239.

*o*-nitro- (PERKIN), 1883, T., 111; (SALKOWSKI), 1884, A., 1176;

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*m*-nitro- (SALKOWSKI), 1884, A., 1176.

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**Phenylacetonitrile-*o*-carboxylic acid**, and its salts (WISLICENUS), 1885, A., 532.

**Phenylacetonylphenylic sulphide** (DE-LISLE), 1889, A., 489.

**Phenylacetophenylhydrazide** (BÜLOW), 1887, A., 138; (PURGOTTI), 1891, A., 59.

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**Phenylaceto-*p*-toluidide** (PURGOTTI), 1891, A., 59; (BISCHLER), 1892, A., 1465.

**Phenylacetotolylene-diamide** (BISTRZYCKI and CYBULSKI), 1891, A., 694.

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**Phenylacetylacetone** (FISCHER and BÜLOW), 1885, A., 1237.

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- Phenylacridine**, derivatives of (BERNTHSEN), 1884, A., 1356; (CLAUS and NICOLAYSEN), 1886, A., 68.  
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- Phenylacrosazones**,  $\alpha$ - and  $\beta$ - (FISCHER and TAFEL), 1888, A., 39.
- $\alpha$ -Phenylacrylic acid**. See Atropic acid.
- $\beta$ -Phenylacrylic acid**. See Cinnamic acid.
- Phenyl- $\alpha$ -alanine**. See  $\alpha$ -Anilidopropionic acid and Phenyl- $\alpha$ -amidopropionic acid.
- Phenyl- $\beta$ -alanine**. See  $\beta$ -Anilidopropionic acid.
- Phenylalanine- $p$ -sulphonic acid** (ERLENMEYER and LIPP), 1883, A., 993.
- Phenylallenyl-**. See Cinnamenyl-.
- Phenylallylacetonitrile** (BUDEBERG), 1890, A., 1142.
- Phenylallylene** (KÖRNER), 1888, A., 368.  
 and its *di*- and *tetra*-bromide (KÖRNER), 1889, A., 372.
- Phenylallylhydrazine** (FISCHER and KNOVENAGEL), 1887, A., 933.
- as*-Phenylallylhydrazine** (MICHAELIS and CLAESSEN), 1889, A., 1161.
- Phenylallylhydrazonophthalaldehydic acid** (ALLENDOFF), 1891, A., 1371.
- Phenylallylideneamidodimethylaniline** (NUTH), 1885, A., 784.
- Phenylallylsemithiocarbazide** (DIXON), 1890, T., 262; P., 25.
- Phenylallylsulphone** (OTTO), 1891, A., 1067.
- Phenylallyltetrazone** (MICHAELIS and CLAESSEN), 1889, A., 1161.
- Phenylamine**. See Phenylamidoimidoethenylamidophenyl mercaptan.
- Phenylamidoacetic acid**, derivatives of (KOSSEL), 1892, A., 467.  
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- Phenylamidoacetomethylanilide** (*phenylglycinmethylanilide*) (BISCHOFF), 1888, A., 726.
- Phenyl-*m*-amidobenzylamine** (BORG-MANN), 1886, A., 57.
- 1-Phenylamido-2:5-dimethylpyrroline-3:4-dicarboxylic acid** (KNORR), 1885, A., 555.
- Phenyldiamidoditolymethane** (ULLMANN), 1885, A., 1236.
- Phenylamidoimidoethenylamidophenyl mercaptan** (*phenylamidine*) (V. HOFMANN), 1887, A., 1040.
- Phenyl- $\beta$ -amidolactic acid** (ERLENMEYER), 1889, A., 988.
- "Phenylamidomesoxalic chloride"** (NEF), 1892, A., 1439.
- Phenylamidomethenylamido- (*carbanil-amido*)-*cresol*, -*cumenol*, - $\alpha$ - and - $\beta$ -naphthols, and -phenanthrol** (JACOBSON and SCHENCKE), 1890, A., 248.
- Phenylamidomethenylamidonaphthol** (JACOBSON), 1888, A., 487.
- Phenylamidomethenylamidothiophenol** (JACOBSON and FRANKENBACHER), 1891, A., 1049.
- 6-Phenylamido-5-methyl-2:4-diethyl-*m*-diazine** (V. MEYER), 1889, A., 685.
- 4-Phenylamido- $\beta$ -naphthol**, *dichloro*- (ZINCKE and KEGEL), 1889, A., 268.
- Phenylamidonaphthylcarbamide** (GOLDSCHMIDT and ROSELL), 1890, A., 616.
- Phenyldi-*p*-amidophenylisobutylmethane**, *m*- and *p*-nitro- (BISCHLER), 1889, A., 133.
- Phenyl-*m*-amidophenylmethylcarbamide** (*m-amido-s-diphenylmethylcarbamide*) (LELLMANN and BENZ), 1891, A., 1215.
- Phenyl- $\alpha$ -amidopropionic acid**, formation of, by the action of stannous chloride on albuminoids (SCHULZE and BARBIERI), 1883, A., 1122.  
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- $\beta$ -Phenylamidopropionic acid**. See  $\beta$ -Anilidopropionic acid.
- Phenyl- $\alpha$ -amidopropionitrile** (ERLENMEYER and LIPP), 1883, A., 992.
- Phenylamidoquinaldine**. See Anilido-2'-methylquinoline.
- Phenyldi-*p*-amidotolymethane**, *m*-amido- (BISCHLER), 1889, A., 133.  
 $\alpha$ - and  $\beta$ -*m*-nitro- (BISCHLER), 1889, A., 133.  
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- Phenyl***di*amido-*m*-xylylmethane, *m*- and *p*-nitro- (BISCHLER), 1889, A., 134.
- Phenylamido-** See also Anilido-.
- Phenylamine.** See Aniline.
- Phenylamines**, compounds of benzotrichloride with (DOEBNER), 1883, A., 861.  
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- Phenylammeline** [m.p. 125°] (SMOLKA and FRIEDREICH), 1890, A., 618.
- Phenylammeline** [m.p. 245°] (OTTO), 1887, A., 1034.
- 1-Phenylammoniochelidonio acid** (LIEBEN and HAITINGER), 1884, A., 1196.
- Phenylamylacetonitrile** (*phenylheptonitrile*) (ROSSOLYMO), 1889, A., 862.
- γ-Phenyl-α-isoamylbutenyllactone** (PAAL and HOFFMANN), 1890, A., 1101.
- β-Phenyl-α-isoamylbutyrolactone** (PAAL and HOFFMANN), 1890, A., 1101.
- Phenylamylcarbamide** (FREUND and LENZE), 1890, A., 1388.
- Phenylamylene** (*phenylpentylene*) and its dibromide (SCHRAMM), 1883, A., 977.  
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- Phenyl-α-isoamylhydrazine** (PHILIPS), 1887, A., 1104.
- Phenylamylthiocarbamide** (FREUND and LENZE), 1890, A., 1388.
- Phenylamyl-** See also Amylphenyl-.
- Phenylangelic acid**, formation of (SLOCUM), 1885, A., 662.  
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- Phenylangelicalactones** (ERDMANN), 1890, A., 377; (FITTIG and STERN), 1892, A., 987.
- α-Phenylanisacrylonitrile** (FROST), 1889, A., 598.
- Phenyl-*o*-anisylcarbamide** (GOLD-SCHMIDT and ERNST), 1890, A., 1411.
- Phenylanisyl-desaurin** (NEY), 1888, A., 1198.
- p*-Phenylanisylethane** (FREUND and REMSE), 1890, A., 1423.
- β-Phenyl-γ-*p*-anisylpropylamine** (FREUND and REMSE), 1890, A., 1423.
- α-Phenylanisylthiocarbamide** (FOERSTER), 1888, A., 946.
- Phenylanisyluramidoxime** (HOCH-HEIM), 1890, A., 1265.
- Phenylanthracene**, preparation of (LINEBARGER), 1892, A., 722.
- Phenylanthranilic acid** (GRAEBE and LAGODZINSKI), 1892, A., 1086.
- Phenylarabinosazone** (SCHEIBLER), 1884, A., 1287.
- Phenylarsine sulphides** (SCHULTE), 1883, A., 186.
- Phenylasparaginphenylimide** (*phenylasparaginanil*) (PIUTTI), 1885, A., 796; (ANSCHÜTZ and WIRTZ), 1887, A., 934.
- Phenylaspartanil** (OSSIPOFF), 1889, A., 124.
- Phenylaspartic acid** (*anilidosuccinic acid*) (ANSCHÜTZ and WIRTZ), 1887, A., 934; (HELL and POLIAKOFF), 1892, A., 819.  
derivatives of (KUSSEROW), 1889, A., 1064.
- Phenylauramine and its salts** (FEHRMANN), 1888, A., 157.
- Phenylazo-** See under Azo-.
- Phenylbenzenylamidine** (LOSSEN), 1892, A., 51.
- Phenylbenzenylimidoximecarbonyl** (MÜLLER), 1886, A., 875.
- Phenylbenzenyl-αβ-naphthylenediamine** (FISCHER), 1892, A., 1472.
- Phenylbenzhydryl-*o*-benzoic lactone** (ELBS), 1890, A., 514.
- Phenylbenzidine**, *di-*o*-nitro-* (SCHÖPFF), 1889, A., 773.
- Phenylbenzimidioethyl ether** (LOSSEN), 1892, A., 52.
- Phenylbenzocreatine** (TRAUBE), 1883, A., 193.
- Phenylbenzoglycocycamidine** (GRIESS), 1885, A., 1227.  
imido- (GRIESS), 1885, A., 1225.
- Phenylbenzoglycocycamidinecarboxylic acid** (GRIESS), 1885, A., 1227.
- Phenylbenzoglycocycamine and amido-**, and their hydrochlorides (GRIESS), 1883, A., 669.
- Phenylbenzoic acid.** See *o*-Diphenylcarboxylic acid.
- Phenylbenzo-β-naphthacridine** (CLAUS and RICHTER), 1884, A., 1359.
- p*-Phenylbenzophenone and its oxime and phenylhydrazone** (KOLLER), 1892, A., 186.
- Phenylbenzoyl-** See Benzoylphenyl-.
- 1-Phenylbenzoyl-oximepyrazole and -phenylhydrazonopyrazole** (BALBIANO), 1890, A., 798.
- Phenylbenzylacetic acid** [b.p. 330°] (MEYER), 1888, A., 693; (v. MILLER and ROHDE), 1892, A., 1211.
- Phenylbenzylacetoxime-*o*-carboxylic acid** (GABRIEL), 1885, A., 903.



- Phenylbenzylamylcarbinyll cyanide (*diphenyloctonitrile*) (ROSSOLYMO), 1889, A., 862.
- Phenylbenzyl-*o*-benzoic acid (ELBS), 1890, A., 514.
- Phenyl-*p*-benzylcarbamide (*p*-*diphenylmethanecarbamide*) (MANNS), 1889, A., 261.
- Phenylbenzylcarbamide, *m*-nitro- (KÜHN and RIESENFELD), 1892, A., 312.
- Phenylbenzylethylthiocarbamide (DIXON), 1891, T., 564.
- Phenylbenzylethylthiocarbamides, isomeric (DIXON), 1892, T., 540.
- Phenylbenzylformamidine (COMSTOCK and CLAPP), 1892, A., 708.
- Phenylbenzylhydrazine phosphenite (MICHAELIS and OSTER), 1892, A., 1325.
- o*-amido-, and *o*-nitro- (PAAL and BODEWIG), 1892, A., 1455.
- Phenyl- $\alpha$ -benzylhydrazine (PHILIPS), 1887, A., 1104; 1889, A., 1159.
- Phenyl-*p*-benzylhydrazine (*diphenylmethanehydrazine*) (MANNS), 1889, A., 261.
- Phenylbenzylhydrazine, thionyl- (MICHAELIS and RUHL), 1892, A., 1324.
- Phenylbenzylhydroxycarbamide (TIEMANN), 1889, A., 1165; (VOLTMER), 1890, A., 1127; 1891, A., 559.
- Phenylbenzylhydroxythiocarbamide (TIEMANN), 1889, A., 1165; (VOLTMER), 1890, A., 1126; 1891, A., 558.
- m*-Phenylbenzyl alcohol (ADAM), 1888, A., 959.
- Phenylbenzylideneallylhydrazine (MICHAELIS and CLAESSEN), 1889, A., 1161.
- Phenylbenzylidenebenzenylamidine (LELLMANN and STICKEL), 1886, A., 793.
- Phenyl-*o*-benzylidenediamine (SÖDERBAUM and WIDMAN), 1890, A., 1258.
- Phenylbenzylidene-ethylhydrazine (PHILIPS), 1889, A., 1158.
- Phenylbenzylidenehydrazine (REISERT), 1884, A., 1152; (PHILIPS), 1887, A., 1105.
- derivatives of (SCHROEDER), 1884, A., 1323.
- o*-nitro- (BISCHLER), 1890, A., 148.
- m*-nitro- (BISCHLER and BRODSKY), 1890, A., 150.
- thio- (RUHL), 1892, A., 1326.
- "Phenylbenzylidenehydrazine, di-cyano-" (BLADIN), 1889, A., 702.
- 2'-Phenylbenzylideneindole (FISCHER and SCHMIDT), 1888, A., 699.
- Phenylbenzylidenemethylhydrazine (ELBERS), 1885, A., 535.
- 1-Phenyl-4-benzylidene-3-methylpyrazolone (KNORR), 1887, A., 602.
- 1-Phenyl-4-benzylidene-3:5-pyrazolidone (MICHAELIS and BURMEISTER), 1892, A., 1005.
- 3':2'-Phenylbenzylindole (TRENKLER), 1889, A., 260.
- Phenylbenzylmethylcarbamide (KÜHN and RIESENFELD), 1892, A., 312.
- 1-Phenyl-3-benzyl-5-methyl-pyrazole (FISCHER and BÜLOW), 1885, A., 1237.
- Phenylbenzylmethylthiocarbamides (DIXON), 1891, T., 562, 564; P., 85.
- Phenylbenzylnitrosamine, preparation of (ANTRICK), 1885, A., 543.
- p*-nitroso- (BOEDDINGHAUS), 1891, A., 1206.
- Phenylbenzylisophosphine (MICHAELIS and GLEICHMANN), 1883, A., 185.
- Phenylbenzylpropylcarbinyll cyanide (ROSSOLYMO), 1889, A., 862.
- Phenylbenzylsemithiocarbazide (DIXON), 1892, T., 1021.
- Phenylbenzylsulphone (KNOEVENAGEL), 1888, A., 706; (OTTO), 1890, A., 380.
- exo*chloro- (OTTO), 1890, A., 379.
- Phenylbenzylthiocarbamide (DIXON), 1889, T., 300.
- asymmetrical (WERNER), 1892, P., 97.
- cyano- (FREUND and IMMERWAHR), 1890, A., 1408.
- Phenylbetaineamide chloride (SILBERSTEIN), 1885, A., 160.
- Phenylbiazolone, amido- (FREUND and KUHL), 1890, A., 1441.
- Phenylbismuthine dibromide (MICHAELIS), 1887, A., 368.
- Phenylbismethyltetrahydroquinolylmethane, amido-. See Phenyl dimethyloctohydrodiquinolylmethane, amido-.
- Phenyl- $\gamma\delta$ -dibromomethyl- $\beta$ -bromacrylic acid, *p*-nitro- (EINHORN and GEHRENBECCK), 1889, A., 396; 1890, A., 162.
- Phenylbromethylactic acid, *p*-nitro-, lactone of (EINHORN and GEHRENBECCK), 1889, A., 397.
- Phenyl dibromobutenenecarboxylic acid, *p*-nitro- (EINHORN and GEHRENBECCK), 1889, A., 396.
- Phenyltribromomethane (INCE), 1885, P., 131.
- Phenyl-mono- and -di-bromomethylsulphones (OTTO), 1890, A., 381.
- Phenyl dibromonitromethane (GABRIEL and KOPPE), 1886, A., 693.

- Phenylisobromoparaconic acid** (FITTIG and LEONI), 1890, A., 895.
- Phenyl-*p*-bromophenylhydrazine, *o*-*p*-dinitro-** (WILLGERODT and ELLON), 1891, A., 1362.
- Phenyl*di*bromopropenylethoxime chloride** (WOLFF), 1890, A., 42.
- Phenyl- $\beta$ -bromopropionic acid**, and its derivatives (BASLER), 1884, A., 603.
- 5-chloro-2-nitro-** (EICHENGRÜN and EINHORN), 1890, A., 1127.
- o*-nitro-**, and its derivatives (EINHORN), 1884, A., 65.
- m*-nitro-** (PRAUSNITZ), 1884, A., 1175.
- $\beta$ -Phenyltribromopropionic acid** (KINICUTT and PALMER), 1884, A., 603.
- Phenyl- $\beta$ - and - $\gamma$ -bromopropylacetamides** (ELFELDT), 1892, A., 214.
- Phenyl- $\beta$ -bromisuccinic acid, *o*- and *p*-nitro-** (STUART), 1886, T., 362.
- Phenyl*di*bromisuccinic acid** (STUART), 1886, T., 360.
- m*- and *p*-nitro-** (STUART), 1886, T., 361.
- $\alpha$ -Phenyltribromothiophen, *p*-bromo-** (KUES and PAAL), 1887, A., 239.
- n*-Phenylbromotrimethylene- $\psi$ -thiocarbamide** (DIXON), 1892, T., 550.
- Phenylisobutaldehyde** (v. MILLER and ROHDE), 1890, A., 979.
- Phenylbutane.** See Butylbenzene.
- Phenylbutinene methyl ketone.** See Styrylvinyl methyl ketone.
- Phenylbutinenecarboxylic acids, nitro-** (EINHORN and GEHRENBECK), 1889, A., 271; 1890, A., 163.
- Phenylbutinenedicarboxylic acid** (STUART), 1886, T., 366.
- Phenylisobutylallylcarbamide and -thiocarbamide** (PAAL and HEUPEL), 1892, A., 31.
- Phenylbutylamine** (*butylaniline*) (KAHN), 1886, A., 263.
- Phenylisobutylamine.** See *iso*Butylbenzene, amido-.
- Phenylbutylene** (*isobutenylbenzene*) (FITTIG and JAYNE), 1883, A., 471; (FITTIG and LIEBMANN), 1890, A., 777.
- $\beta$ -Phenylbutylene**, molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.
- Phenyl- $\alpha$ -isobutylhydrazine** (PHILIPS), 1887, A., 1104.
- Phenylisobutyl-hydrazine and -hydrazone, thionyl-** (MICHAELIS and RUHL), 1892, A., 1324.
- s*-Phenylisobutylthiocarbamide** (HECHT), 1892, A., 702.
- Phenylisobutylthiocarbimide** (PAHL), 1884, A., 1010.
- Phenylbutyric acid** (JAYNE), 1883, A., 473.
- $\alpha$ - and  $\beta$ -bromo-** (JAYNE), 1883, A., 472; (FITTIG and MORRIS), 1890, A., 891.
- $\alpha\beta$ -dibromo-**, decomposition of (FITTIG, OBERMÜLLER and SCHIFFER), 1892, A., 987.
- $\gamma$ -chloro-** (FITTIG and MORRIS), 1890, A., 891.
- $\alpha$ -iodo-** (FITTIG and MORRIS), 1890, A., 891.
- Phenylisobutyric acid ( *$\alpha$ -methylhydrocinnamic acid*)**, derivatives of (EDELEANU), 1887, A., 583; 1888, T., 558; P., 55.
- $\alpha\beta$ -dibromo-** (A. KÖRNER), 1888, A., 368.
- derivatives of (A. KÖRNER), 1888, A., 368; (T. KÖRNER), 1889, A., 372.
- m*-chloro-** (v. MILLER and ROHDE), 1890, A., 1140.
- p*-nitro- and nitramido-** (EDELEANU), 1888, T., 558.
- $\alpha$ -Phenylbutyric acid (*phenylethylacetic acid*)** (NEURE), 1889, A., 597.
- Phenylbutyric-*o*-carboxylic acids** (ROSER), 1886, A., 243.
- Phenylbutyrolactone** (JAYNE), 1883, A., 472.
- action of halogen acids on (FITTIG and MORRIS), 1890, A., 891.
- action of halogen acids and of gaseous ammonia on (FITTIG), 1884, A., 744.
- $\beta$ -bromo- and isobromo-** (FITTIG, OBERMÜLLER and SCHIFFER), 1892, A., 987.
- Phenylisobutyroxypivalic acid and anhydride** (OTT), 1885, A., 663.
- Phenylcacodyl** (*tetraphenyldiarsine*) (MICHAELIS and SCHULTE), 1883, A., 187.
- Phenylcarbamic acid, sulpho-** (NÖLTING), 1889, A., 144.
- Phenylcarbamide and its derivatives** (PINNOW), 1892, A., 460.
- action of halogenated amines on (GATTERMANN), 1886, A., 795.
- bromo-derivatives of** (BERTRAM), 1892, A., 467.
- di*-*p*-chloro-** (HEWITT), 1891, T., 212.
- Phenylcarbamides, thio-**, melting points of (PASCHKOWETZ), 1892, A., 324.
- Phenylcarbamyl-**. See Carbanilido-.
- Phenylcarbazacridine** (BIZZARRI), 1891, A., 219.
- Phenylcarbizinecarboxyl-amide and -anilide** (FREUND and GOLDSMITH), 1888, A., 1187.

**Phenylcarbizinecarboxylic acid**, amido- (FREUND and KUH), 1890, A., 1441.

**Phenylcarbizine-thiamide and -thianilide** (FREUND and GOLDSMITH), 1888, A., 1188.

**Phenylcarbylamine**. See Phenyllic isocyanide.

**Phenyl-dichlorocarbimethylcarbinol** (WILLGERODT and GENIESER), 1888, A., 811.

**Phenyl-*m*-chlorophenylhydrazine, *o*-*p*-dinitro-** (WILLGERODT and MÜHE), 1892, A., 454.

**Phenyl-*p*-chlorophenylhydrazine, *o*-*p*-dinitro-** (WILLGERODT), 1890, A., 1119; (WILLGERODT and BÖHM), 1891, A., 906.

**Phenylchrysylthiocarbamide** (ABEGG), 1891, A., 731.

***α*-Phenylcinchoninic acid** (2'-phenylquinoline-4'-carboxylic acid) (DOEBNER), 1887, A., 504.

homologues of (DOEBNER and GIESEKE), 1888, A., 300.

**Phenylcinnamenyl-uramidethoxime and -uramidoxime** (WOLFF), 1890, A., 42.

***α*-Phenylcinnamic acid**, derivatives of (CABELLA), 1884, A., 1348.

*o*-nitro- (OGLIALORO-TODARO and ROSINI), 1891, A., 214.

***α*-Phenylcinnamonitrile** (NEURE), 1889, A., 597.

***α*-Phenyl-*β*-cinnamylidenecacrylic acid** (REBUFFAT), 1885, A., 1137.

***α*-Phenyl-*β*-cinnamylideneneacrylonitrile** (FREUND and IMMERWAHR), 1890, A., 1408.

**Phenylcitraconazide**, nitro- (MICHAEL), 1886, A., 699.

**1-Phenylcomenamic acid** (MENNEL), 1885, A., 1203.

**Phenylconiine, *o*-*p*-dinitro-** (LELLMANN and JUST), 1891, A., 1245.

**Phenyl-*p*-coumaric acid**, synthesis of (OGLIALORO-TODARO), 1884, A., 176.

derivatives of (CABELLA), 1888, A., 694.

**Phenylcoumarin**, crystallography of (SCACCHI), 1885, A., 901.

**Phenylcoumarinsulphonic acids**, and their salts (CURATOLO), 1885, A., 539.

**Phenylcrotonaldehyde, *m*-amido-** (v. MILLER and KINKELIN), 1886, A., 701.

*m*-nitro- (v. MILLER and KINKELIN), 1886, A., 560.

base from (v. MILLER and KINKELIN), 1886, A., 701.

**Phenylcrotonaldehyde, *m*-nitro-**, product of the reduction of (v. MILLER and KINKELIN), 1886, A., 799.

**Phenylcrotonic acid** (*α*-methylcinnamic acid; phenylmethylacrylic acid) (STUART), 1883, T., 404, 407; (RAIKOW), 1888, A., 369.

preparation of (ERDMANN), 1885, A., 528.

formation of (SLOCUM), 1885, A., 662.

nitration of, in the side chain (ERDMANN), 1891, A., 1483.

action of sulphuric acid on (ERDMANN), 1885, A., 528.

derivatives of (EDELEANU), 1887, A., 583; 1888, T., 558; P., 55.

*β*-bromo- (KÖRNER), 1888, A., 368.

*β*-chloro- (PERKIN and CALMAN), 1886, T., 158; P., 139.

*m*-chloro- (v. MILLER and ROHDE), 1890, A., 1139.

*m*-nitro- (v. MILLER and ROHDE), 1890, A., 1140.

**Phenylisocrotonic acid** (*βγ*-phenylcrotonic acid) and its derivatives (JAYNE), 1883, A., 472; (BUCHNER and DESSAUER), 1892, A., 850.

action of nitric acid on (ERDMANN), 1884, A., 906.

oxidation of (FITTIG), 1888, A., 595; (FITTIG and OBERMÜLLER), 1892, A., 986.

*p*-chloro- (SCHWECHTEN), 1890, A., 620; (ERDMANN and SCHWECHTEN), 1891, A., 449.

2:4- and 2:5-dichloro- (SCHWECHTEN), 1890, A., 620; (ERDMANN and SCHWECHTEN), 1891, A., 450.

3:4-dichloro- (ERDMANN), 1889, A., 265; (SCHWECHTEN), 1890, A., 620; (ERDMANN and SCHWECHTEN), 1891, A., 451.

**Phenylcrotonitrilecarbamide** (PINNER and LIFSCHÜTZ), 1887, A., 1055.

**Phenylisocroton-*α*-lactone** (BIEDERMANN), 1892, A., 472.

**Phenylcumazonic acid** (WIDMAN), 1884, A., 304.

**Phenylcumylthiocarbamide** (GOLD-SCHMIDT and GESSNER), 1887, A., 1039.

**Phenylcyanamide** and its derivatives (v. HOFMANN), 1886, A., 233.

preparation of (BERGER), 1884, A., 1157.

action of acetamide on (BERGER), 1885, A., 387.

**Phenylcyanethine**. See 6-Phenyl-amido-5-methyl-2:4-diethyl-*m*-diazine.



- Phenylcyanotetrazole (BLADIN), 1887, A., 139.
- Phenylisocyanuric acid (RATHKE), 1888, A., 591; (SMOLKA and FRIEDREICH), 1890, A., 618.
- Phenyl-*p*-cymylcarbinol (CLAUS and ELBS), 1885, A., 1065; (ELBS), 1887, A., 942.
- Phenylcysteine, bromo-, action of acetic anhydride on (BAUMANN), 1885, A., 514.
- Phenyldehydrohexone (PERKIN), 1887, T., 731.  
action of hydrogen bromide on (PERKIN), 1887, T., 732.
- Phenyldehydrohexonecarboxylic acid (PERKIN), 1887, T., 728; (KIPFING and PERKIN), 1890, T., 308.  
action of hydrogen bromide and of water on (PERKIN), 1887, T., 732.  
*p*-nitro- (PERKIN), 1887, T., 736.
- Phenyldehydropentone (MARSHALL and PERKIN), 1891, T., 886.
- Phenyl-di-*p*-acetamidoditolylmethane,  $\beta$ -*p*-nitro- (BISCHLER), 1889, A., 132.
- Phenylacetate (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Phenyl-di-*iso*amylamine (LLOYD), 1887, A., 721; 1889, A., 700.
- Phenylamylhydrazine (GRIMALDI), 1891, A., 302.
- Phenyl-dianethoilmethane, *m*-nitro- (DE VARDA), 1891, A., 1347.
- Phenyl-dibenzylcarbamide (HAMMERICH), 1892, A., 1033.
- 5-Phenyl-2:4-dibenzyl-*m*-diazine, 6-amido- (WACHE), 1889, A., 634.
- as*-Phenyl-dibenzylthiocarbamide (DIXON), 1891, T., 567.
- Phenyl-di-*iso*butylamine (LLOYD), 1887, A., 721; 1889, A., 700.
- Phenyl-di-*iso*butylcarbamide, -guanidine and -thiocarbamide (PAHL), 1884, A., 1010.
- Phenyl-di-*o*-cresolmethane (*phenyl-di-hydroxyditolylmethane*), *m*-nitro- (SIBONI), 1892, A., 621.
- Phenyl-diethyl ethylene oxide (HENRY), 1883, A., 803.
- Phenyl-diethylacetamidine and its hydrochloride (LUCKENBACH), 1884, A., 1135.
- Phenyl-diethylalkine. See Hydroxy-ethyl ethylaniline.
- Phenyl-diethylarsine (SCHULTE), 1883, A., 186.  
action of benzylidenic chloride on (HOLLE), 1892, A., 984.
- Phenyl-diethylazonium iodide (PHILIPS), 1889, A., 1158.
- Phenyl-diethylcarbamide (GEBHARDT), 1885, A., 383.
- Phenyl-diethylenetriamine (GABRIEL), 1889, A., 1167.
- Phenyl-diethylethylidenetrisulphone (LAVES), 1892, A., 613.
- Phenyl-diethylformamidine (COMSTOCK and WHEELER), 1892, A., 707.
- Phenyl-diethylmethenyltrisulphone, and its chloro- and bromo-derivatives (LAVES), 1892, A., 613.
- Phenyl-diethylthiocarbamine derivatives (BILLETER), 1887, A., 823.
- Phenyl-difurylnaphthadihydroquin-oxaline (FISCHER), 1892, A., 1475.
- Phenyl-diguanide derivatives (SMOLKA and FRIEDREICH), 1888, A., 830.
- 2'-Phenyl-1':3'-dihydroindazine (PAAL), 1891, A., 724.
- 2'-Phenyl-dihydroindole (FISCHER and SCHMIDT), 1888, A., 699.
- Phenyl-dihydro- $\beta$ -naphthatriazine (GOLDSCHMIDT and POLTZER), 1891, A., 840.
- Phenyl-dihydro- $\beta$ -phenotriazine (BUSCH), 1892, A., 734.
- Phenyl-dihydroquinazoline (PAAL and BUSCH), 1890, A., 72.
- Phenyl-dihydroquinolylmethane (EINHORN), 1886, A., 720.
- Phenyl-di-*iso*dihydroxybutyric acid (FISCHER and STEWART), 1892, A., 1448.
- Phenyl-di-*iso*dihydroxybutyric acid, salts of (FITTIG and OBERMÜLLER), 1892, A., 987.
- Phenyl-dihydroxyphenylmethanedicarboxylic acids, *o*-, *m*- and *p*-nitro- (DE VARDA), 1892, A., 621.
- $\omega$ -Phenyl- $\alpha\beta$ - and - $\alpha\omega$ -diketobutane (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Phenyl-diketodimethylanilidopiperidinecarboxylic acid (REISSERT), 1888, A., 697.
- Phenyl-diketomethyl-anilido-*mono*- and *di*-bromopyrrolidines (REISSERT), 1890, A., 642.
- Phenyl-diketomethyl-anilidodichloropyrrolidine (REISSERT), 1890, A., 643.
- Phenyl- $\alpha\delta$ -diketopiperazine (BISCHOFF), 1889, A., 1015.
- $\alpha$ -Phenyl- $\alpha\omega$ -diketopropane. See Phenyl methyl diketone.
- Phenyl-dimethyl-. See also Xyl-yl-.
- Phenyl-dimethylacetamidine, *s*- and *as*- (LUCKENBACH), 1884, A., 1135.
- Phenyl-dimethylarsine, action of benzylidenic chloride on (HOLLE), 1892, A., 984.

- Phenyldimethylethylammonium iodide** (CLAUS and HOWITZ), 1884, A., 1005.  
*tri-, penta-, and hepta-*iodides (GUTHER), 1887, A., 910.
- 2-Phenyl-4:5-dimethylglyoxaline** (WADSWORTH), 1890, T., 9.
- 4-Phenyl-2:6-dimethylhexahydropyridine** (*phenyllupetidine*) (BALLY), 1888, A., 65.
- 4-Phenyl-2:6-dimethylhexahydropyridinedicarboxylic acid** (KIRCHNER), 1892, A., 1487.
- Phenyldimethyloctohydrodiquinolylmethane**, amido- (v. MILLER and PLÖCHL), 1891, A., 1102.
- n-Phenyldimethylsotriazole** (BALTZER and v. PECHMANN), 1891, A., 1115.
- Phenyldimethylsotriazone** (v. PECHMANN), 1888, A., 1288.
- 1-Phenyl-3:5-dimethylpyrazole** (COMBES), 1889, A., 57.  
 4-bromo- (BALBIANO), 1890, A., 1165.
- 1-Phenyl-3:5-dimethylpyrazole-4-carboxylic acid** (KNORR), 1887, A., 678.
- 1-Phenyl-3:5-dimethylpyrazole-1-sulphonic acid** (CLAISEN and ROOSEN), 1891, A., 1107.
- 1-Phenyl-2:3-dimethylpyrazolidone** (KNORR and DUDEN), 1892, A., 731.
- 1-Phenyl-2:3-dimethylpyrazolone** (*antipyrin*; *dimethyloxyquinizine*) (KNORR), 1884, A., 1153, 1378; (KNORR and BÜLOW), 1884, A., 1382.  
 See also Antipyrin.
- 1-Phenyl-3:4-dimethylpyrazolone** (KNORR and BLANK), 1884, A., 1380; (KNORR), 1887, A., 601; (PELLIZZARI), 1889, A., 518.
- 1-Phenyl-2:3-dimethylisopyrazolone** (LEDERER), 1892, A., 635.
- 1-Phenyl-2:3-dimethylpyrazolone-4-tartronyl-imide and -carbamide** (PELLIZZARI), 1889, A., 517.
- Phenyldimethylpyridazine** (KNORR), 1885, A., 995.
- Phenyldimethylpyridazinedicarboxylic acid**. See 1-Phenylamido-2:5-dimethylpyrrolidine-3:4-dicarboxylic acid.
- 4-Phenyl-2:6-dimethylpyridine** (*phenyl-lutidine*) (BALLY), 1888, A., 65.  
*m-amido-* (LEPETIT), 1887, A., 1053.
- 4-Phenyl-2:6-dimethylpyridine-3-carboxylic acid and its derivatives** (HANTZSCH), 1885, A., 397.
- 4-Phenyl-2:6-dimethylpyridine-3:5-dicarboxylic acid** (KIRCHNER), 1892, A., 1486.  
*m-amido-* (LEPETIT), 1887, A., 1053.
- Phenyl- $\beta$ -dimethylpyridinedicarboxylic acid** (REED), 1887, A., 681.
- 4-Phenyl-1:6-dimethyl-2-pyridone** (*methylated- $\psi$ -carbostyryl of phenylpicoline*) (HANTZSCH), 1885, A., 398.
- Phenyl-2:6-dimethylpyridone** (*phenyl-lutidone*) (PERKIN), 1887, T., 499; (CONRAD and GUTHZEIT), 1887, A., 501.
- Phenyl-2:6-dimethylpyridone-mono- and -di-carboxylic acids** (CONRAD and GUTHZEIT), 1887, A., 500.
- 1-Phenyl-2:5-dimethylpyrrolidine** (KNORR), 1887, A., 275.
- 1-Phenyl-2:5-dimethylpyrrolidine-3:4-dicarboxylic acid** (KNORR), 1885, A., 555.
- 2'-Phenyl-1':4'-dimethylquinolinium hydroxide** (*methylflavolinium hydroxide*) (BERNTHSEN and HESS), 1885, A., 559.
- Phenyldimethylquinoxaline** (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Phenyldimethylsulphonediamide** (BEHREND), 1884, A., 285.
- Phenyldimethyltetrahydronaphthalene** (ERDMANN), 1885, A., 528.
- Phenyldimethylthiocarbamide** (DIXON), 1892, T., 539.
- s-Phenyldimethylthiocarbamide** (GEHARDT), 1885, A., 383.
- Phenyldimethylthiohydantoin** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.
- 1-Phenyl-4-dimethyl-2-thiomethoxyglyoxaline** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 153.
- Phenyldimethylurazole** (PINNER), 1888, A., 688.
- Phenyldiarcinolmethane**, *m-nitro-* (BERTONI), 1891, A., 1378.
- Phenyldiphloroglucinolmethane**, *m-nitro-* (BERTONI), 1891, A., 1378.
- Phenyldipiperidyl**, *p-nitro-*, and *o:p-dinitro-* (LELLMANN and JUST), 1891, A., 1245.
- Phenyldipropyl-carbamide**, -guanidine and -thiocarbamide (FRANCKSEN), 1884, A., 1008.
- Phenyldiquinolylmethane**, *p-nitro-* (EINHORN), 1886, A., 720.
- Phenyldiresorcinolmethane**, *m-nitro-* (DE VARDA and ZENONI), 1891, A., 1446.
- Phenyldithienyl** (RENARD), 1890, A., 1420.  
*tribromo- and dinitro-* (RENARD), 1890, A., 1420.
- Phenyldithienyldisulphonic acid** (RENARD), 1890, A., 1421.

- Phenyldithymolmethane** (RUSSANOFF), 1889, A., 1188; 1891, A., 1235.
- Phenyl-*p*-ditolylbiuret** (KÜHN and HENSCHER), 1888, A., 474.
- Phenyl-*p*-ditolylcarbamide** (HAMMERICH), 1892, A., 1083.
- s*-Phenyldi-*o*-tolylguanidine** (HUHN), 1886, A., 1036.
- Phenylditolylmethane, *m*-nitro-** (TSCHACHER), 1887, A., 44; 1888, A., 373.
- Phenylditolylphosphine** (DÖRKEN), 1888, A., 833.
- Phenyldi-*p*-tolyltriazole** (BLADIN), 1890, A., 271.
- Phenyldi-*p*-xylylmethane** (ELBS), 1887, A., 941.
- Phenyldixylyl- $\beta$ -pinacoline** (ELBS), 1887, A., 941.
- Phenyldulcitosazone** (FISCHER and TAFEL), 1888, A., 358.
- Phenylisodurylcarbaryl benzoate and acetate** (ESSNER and GOSSIN), 1885, A., 253.
- Phenylisoduryl glycollic acid** (ESSNER and GOSSIN), 1885, A., 253.
- o*-Phenylene hydrogen antimonite** (CAUSSE), 1892, A., 1078.
- Phenyleneamidinebenzenyl-*o*-carboxylic acid** (BISTRZYCKI), 1890, A., 970.
- Phenylene-*p*-amidobenzoylurethane** (HAGER), 1885, A., 150.
- Phenylenediamidodiacetic acid** (*phenylenediglycine*), hydrochloride of (ZIMMERMANN and KNYRIM), 1883, A., 797.
- Phenylenebenzenyldiamine** (AUWERS and v. MEYENBURG), 1891, A., 1378.  
ethyl-derivative and nitrile of (HOWE), 1884, A., 741.
- Phenylenedibromacetylene ketone.**  
See Ketoindene, dibromo-.
- Phenylenecarbamide** (*amidocarbamidophenol*) (KALCKHOFF), 1883, A., 1110.  
amido- (JENTZSCH), 1889, A., 46.
- Phenylenetrichlorethylene ketone.** See Ketohydrindene, trichloro-.
- Phenylenetetrachlorethylene ketone.** See Ketohydrindene, tetrachloro-.
- Phenylenetrichlorethyleneglycollic acid** (ZINCKE), 1888, A., 158.
- Phenylenedichlorodibromomethylene ketone.** See Ketohydrindene, dichlorodibromo-.
- Phenylenechlorohydroxyacetylene ketone** (ZINCKE), 1887, A., 728.
- Phenylene-*p*-diacetamidine** (GLOCK), 1888, A., 1290.
- o*-Phenylenediacetic acid** (v. BAEYER and PAPE), 1884, A., 898.
- Phenylenediacetic acids, *m*- and *p*-** (KIPPING), 1888, T., 42.
- Phenylene-*p*-diacetimidethyl ether** (GLOCK), 1888, A., 1290.
- p*-Phenylenediacryl methyl ketone** (LÖW), 1886, A., 461.
- o*-Phenylenediacrylic acid** (PERKIN), 1886, A., 469; 1888, T., 14.
- p*-Phenylenediacrylic acid** (LÖW), 1886, A., 461; (KIPPING), 1888, T., 41.
- o*-Phenylenediallyldithiocarbamide** (LELLMANN and WÜRTNER), 1885, A., 977.
- Phenylenediamine** (*diamidobenzene*), azo- and diazo-derivatives of (WALLACH and SCHULZ), 1883, A., 583.
- o*-Phenylenediamine, preparation of** (LELLMANN), 1884, A., 49.  
action of cyanogen on (BLADIN), 1885, A., 257, 785.  
action of ferric chloride on (WIESINGER), 1884, A., 1322.  
action of formaldehyde on (FISCHER and WRESZINSKI), 1892, A., 1496.  
oxidation of (FISCHER and HEPP), 1889, A., 499; 1890, A., 800.  
detection of, in *m,p*-tolylene-diamine (HINSBERG), 1885, A., 934.
- "*o*-Phenylenediamine, dicyano-"** (BLADIN), 1885, A., 257, 785.
- m*-Phenylenediamine, preparation of,** from resorcinol (SEYEWITZ), 1890, A., 245.  
action of carbon disulphide on (GUCCI), 1885, A., 156; 1886, A., 1023; 1888, A., 588.  
condensation of, with cenanthaldehyde (v. MILLER), 1891, A., 1103.  
physiological action of (DUBOIS and VIGNON), 1889, A., 66.  
preservation of solutions of, and its use as a reagent (DENIGES), 1892, A., 1124.
- dinitro- [m.p. 250°]** (BARR), 1888, A., 823.  
[m.p. 300°] (NIETZKI and HAGENBACH), 1887, A., 477.
- trinitro-** (NÖLTING and COLLIN), 1884, A., 1004; (BARR), 1888, A., 823.
- p*-Phenylenediamine, preparation of** (LELLMANN), 1884, A., 49.  
nitration of (LADENBURG), 1884, A., 738.  
oxidation of (v. BANDROWSKI), 1889, A., 973.  
physiological action of (DUBOIS and VIGNON), 1889, A., 66.  
salts, heat of formation of (VIGNON), 1888, A., 1012.



- p*-Phenylenediamine, *dichloro*-, hydrochloride (MÖHLAU), 1886, A., 941.
- Phenylenediamines and their derivatives (LELLMANN), 1883, A., 324.
- thermochemistry of (VIGNON), 1889, A., 1099.
- condensation of, with acetaldehyde (SCHIFF and VANNT), 1890, A., 139.
- condensation of, with butaldehydes (LASSAR-COHN), 1890, A., 138.
- action of *p*-diazobenzenesulphonic acids on (GRIESS), 1883, A., 183.
- action of ethylic chloracetate on (ZIMMERMANN and KNYRIM), 1883, A., 797.
- mono-additive products of phenylic cyanate and (LELLMANN and WÜRTNER), 1885, A., 978.
- benzyl derivatives of (MELDOLA and COSTE), 1889, T., 590; P., 116.
- cyanic acid derivatives of (LELLMANN), 1883, A., 798.
- p*-Phenylenediaminedibenzylidenesulphonic acid, sodium salt of (KAFKA), 1891, A., 721.
- o*-Phenylenediaminesulphonic acid (NIETZKI and LERCH), 1889, A., 144.
- o*-Phenylenediamine-*p*-sulphonic acid (LERCH), 1889, A., 881.
- 2:5-Phenylenediaminethiosulphonic acid (BERNTHSEN), 1889, A., 777.
- o*-Phenylenediazosulphide (JACOBSON), 1889, A., 135.
- Phenylenediazosulphidecarboxylic acid (PFITZINGER and GATTERMANN), 1889, A., 868.
- Phenylenedibenzylidiacetic acid (MEYER and OELKERS), 1888, A., 704.
- Phenylenedicarbamides, three isomeric (LELLMANN), 1883, A., 798.
- Phenylenediethyldisulphone (OTTO and CASANOVA), 1888, A., 255.
- Phenylenediglycoccine. See Phenylenediamidodiacetic acid.
- p*-Phenylenedimethylaminediethylmethylphosphonium iodide (MICHAELIS and SCHENK), 1891, A., 436.
- p*-Phenylenedimethylaminediethylphosphine and its oxide and sulphide (MICHAELIS and SCHENK), 1891, A., 436.
- p*-Phenylenedimethylaminedimethylphosphine and its oxide and sulphide (MICHAELIS and SCHENK), 1891, A., 435.
- p*-Phenylenedimethylaminediphenylmethylphosphonium iodide and *p*-phenylenedimethylaminediphenylphosphine oxide and sulphide (MICHAELIS and SCHENK), 1891, A., 436.
- Phenylenedimethylaminephenylmethylphosphine oxide and phenylenedimethylamine-triethyl- and -trimethyl-phosphonium iodides (MICHAELIS and SCHENK), 1891, A., 435.
- m*-Phenylenedimethyldinitramine, trinitro- (VAN ROMBURGH), 1888, A., 1079, 1185.
- o*-Phenylenedipropionic acid (PERKIN), 1886, A., 469; 1888, T., 18.
- Phenylenedipropionic acids, *m*- and *p*- (KIPPING), 1888, T., 32, 39.
- Phenylene-ethenylamidine, nitro- (*nitro-ethenyl-o-phenylenediamine*) (HEIM), 1888, A., 1097.
- Phenylene-ethenylethylamidine (*ethenylethyl-o-phenylenediamine*) (HEMPEL), 1889, A., 600; 1890, A., 612.
- Phenylene-ethyl-*o*-diamines (*amido-ethylaniline*) (HEMPEL), 1889, A., 600; 1890, A., 612.
- Phenylene-ethyl-*m*-diamine (NÖLTING and STRICKER), 1886, A., 545.
- Phenylene-ethyl-*p*-diamine (SCHWEITZER), 1886, A., 347; (FISCHER and HEPP), 1887, A., 244.
- o*-Phenylene-ethylenediamine and its derivatives (MERZ and RIS), 1887, A., 722; (RIS), 1888, A., 468.
- Phenylene-ethylenedisulphone (OTTO and CASANOVA), 1888, A., 256.
- Phenylenehydroxylamine, *dinitro*- (WILLGERODT), 1892, A., 594.
- Phenylenedimidobutyric acid, synthesis of (KNORR), 1884, A., 1198.
- o*-Phenylenemethyldiamine (FISCHER), 1892, A., 1475.
- m*-Phenylenemethyldiamine (NÖLTING and STRICKER), 1886, A., 544.
- p*-Phenylenemethyldiamine (BERNTHSEN and GOSKE), 1887, A., 667.
- Phenylenemethylethenylamidine (FISCHER), 1892, A., 1475.
- $\beta$ -Phenylenenaphthylenemethane oxide (PHOMINA), 1890, A., 901.
- Phenylene- $\beta$ -naphthylethenyldiamine, nitro- (HEIM), 1888, A., 488.
- m*-Phenyleneoxytrichlorethylene (MICHAELIS), 1886, A., 614.
- Phenylenepropenyldiamine, action of bromine on (SMITH), 1885, A., 524.
- Phenylenepropyldiamine (WACKER), 1888, A., 466.
- Phenylenepropylenediamine (RIS), 1888, A., 468.
- Phenylenepyridineketonedicarboxylic acids,  $\alpha$ - and  $\beta$ - (DOEBNER and PETERS), 1890, A., 1008.
- formation of, by the oxidation of naphthaquinoline derivatives (DOEBNER and PETERS), 1890, A., 1007.

- Phenylenequinaldine.** See Phenyl-2'-methylquinoline.
- m-Phenylenesuccinamic acid** (GRIESS), 1885, A., 1220.
- Phenylenetetramethyl-**. See Tetramethylphenylene-
- o-Phenylenethiocarbamide** (LELLMANN), 1883, A., 324; 1884, A., 49.
- Phenylenethiocarbamides** (LELLMANN), 1883, A., 185; (BILLETTER and STEINER), 1887, A., 366.
- Phenylenedithiocarbamides** and their derivatives (LELLMANN), 1883, A., 324; 1884, A., 49.
- o-Phenylene-p-tolylguanidine** (KELLER), 1891, A., 1470.
- p-Phenyleneurethane** (GATTERMANN and WRAPPELMAYER), 1886, A., 50.
- Phenylenic carbamates, o-, m-, and p-** (GATTERMANN), 1888, A., 575.
- Phenylenic cyanates, m- and p-** (GATTERMANN and WRAPPELMAYER), 1886, A., 50.
- Phenylenic oxide** (VAUBEL), 1892, A., 1187.
- p-Phenylenic disulphide** (LEUCKART), 1890, A., 605.
- m-Phenylenic o-tolylcarbamate** (GATTERMANN and CANTZLER), 1892, A., 832.
- Phenylethenyldiamidoacetone** (RÜGHEIMER and MISCHER), 1892, A., 952.
- Phenylethenylamidoxime**, and its derivatives (KNUDSEN), 1885, A., 897, 1218.
- p-cyano-** (ROSENTHAL), 1890, A., 147.
- Phenylethenylamidoximebenzenesulphone** (PINNOW), 1892, A., 461.
- Phenylethenylazidine hydrochloride** (PINNER), 1884, A., 1323.
- Phenylethenylazo-**. See Azo.
- Phenylethenylphenyluramidoxime** (KNUDSEN), 1885, A., 898.
- ethyl ether** (KNUDSEN), 1885, A., 1218.
- Phenylethoxynaphthalene, diamido-** (WEINBERG), 1888, A., 286.
- Phenylethylacetanilide,  $\beta$ -bromo-** (ELFELDT), 1892, A., 214.
- Phenylethylacetic acid** (NEURE), 1889, A., 597.
- Phenylethylallylthiocarbamide** (GEBHARDT), 1885, A., 383.
- Phenylethylamidoacetic acid** (HEUMANN), 1891, A., 837.
- Phenylethylamidobenzeneazophenylethylaniline** (LIPPMANN and FLEISSNER), 1884, A., 180.
- $\alpha$ -Phenylethylamine** (TAFEL), 1886, A., 940.
- derivatives** (TAFEL), 1889, A., 976.
- $\omega$ -Phenylethylamine** (ERLENMEYER and LIPP), 1883, A., 993.
- preparation of** (HOOGWERFF and VAN DORP), 1887, A., 245.
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- as-Phenylethylcarbamide** (GEBHARDT), 1884, A., 1321.
- Phenylethylcarbinol** (ERRERA), 1887, A., 35.
- Phenylethylene**. See Styrene.
- Phenylethylene-carbamide and -thiocarbamide** (NEWMAN), 1891, A., 1206.
- Phenylethylenediamine** (GABRIEL), 1889, A., 1166.
- Phenylethyl-hydantoin and - $\psi$ -hydantoin** (PINNER), 1888, A., 1103.
- Phenylethylhydrazine** acetacetate, action of hydrocyanic acid on (V. MILLER and PLÖCHL), 1892, A., 1196.
- o-amido-** (HEMPER), 1890, A., 612.
- Phenylethylhydrazine-glyoxal and -glyoxylic acid** (ELBERS), 1885, A., 535.
- Phenylethylhydrazone**, thionyl- (MICHAELIS), 1889, A., 1163.
- Phenylethyl alcohol, oximido-** (MEYER and NÄGELI), 1883, A., 1076.
- Phenylethyl salicylate, o-nitro-** (*salicyl ethylene nitrophenol ether*) (WAGNER), 1884, A., 436.
- Phenylethylidene cyanhydrin** (ERLENMEYER and LIPP), 1883, A., 992.
- Phenylethylidenebenzenylamidoxime** (ZIMMER), 1890, A., 253.
- Phenylethylketone-o-carboxylic acid** (*benzoyl ethyl-o-carboxylic acid*) (ROSER), 1886, A., 243.
- Phenylethylactic acid**, behaviour of (SLOCUM), 1885, A., 662.
- $\beta$ -Phenyl- $\alpha$ -ethylactic acid** (PERKIN and STENHOUSE), 1891, P., 43.
- Phenylethylmalonamide** (FREUND and GOLDSMITH), 1888, A., 676.
- Phenylethylnitrosamine, p-nitro-** (MELDOLA and STREATFIELD), 1886, T., 631.
- 5-Phenyl-1-ethyloxy- $\psi$ -thiazole** (HUBACHER), 1891, A., 222.
- Phenylethylphenol**. See Hydroxydiphenylethane.
- Phenylethylphenylthiocarbamide** (MAINZER), 1883, A., 1106.
- Phenylethylphthalamic acid** and its salts (PIUTTI), 1884, A., 449.
- Phenylethylpropionic acid**, preparation and properties of (ANSCHÜTZ and BERNS), 1891, A., 914.

- 1:5-Phenylethylpyrazole (CLAISEN and STYLOS), 1888, A., 671.
- Phenylethylsemithiocarbazide (DIXON), 1889, T., 302.
- Phenylethylsulphone (OTTO), 1885, A., 537.
- $\alpha$ -Phenyl- $\mu$ -ethylthiazole (HUBACHER), 1891, A., 221.
- Phenylethylthiobiuret (TURSINI), 1884, A., 1141.
- Phenylethylthiocarbamide (NEUBERT), 1886, A., 873.
- $\alpha$ S-Phenylethylthiocarbamide (GEBHARDT), 1884, A., 1321.
- Phenylethylthiocarbamine chloride and oxide (BILLETER), 1887, A., 822.
- Phenylethylthiocarbimide (NEUBERT), 1886, A., 873.
- Phenylethylthiohydantoin hydrochloride (NEUBERT), 1886, A., 873.
- 2-Phenyl-4-ethylthiophen (DITTRICH and PAAL), 1889, A., 258.
- Phenylethyltriazolecarboxylic acid (BLADIN), 1892, A., 637.
- Phenylethylurethane, nitro- (STEUDERMANN), 1883, A., 802.
- Phenylfenchylamine (WALLACH), 1891, A., 1088.
- Phenylformamidine, cyano- (COMSTOCK and WHEELER), 1892, A., 707.
- Phenylfuran (RUSSANOFF), 1892, A., 322.
- $\alpha$ -Phenylfurfuracrylonitrile (FROST), 1889, A., 598.
- p*-amido-, and *p*-nitro- (FREUND and IMMERWAHR), 1890, A., 1408.
- Phenylfurfuryl-carbamide and -thiocarbamide (DEUTZMANN), 1892, A., 43.
- Phenylgalactosazone (SCHEIBLER), 1884, A., 1287; (FISCHER), 1885, A., 54.
- Phenylglucosazone (FISCHER), 1885, A., 53; 1886, A., 933.
- Phenylglucosazonecarboxylic acid (RODER), 1887, A., 150.
- Phenylglutaric acid (MICHAEL), 1887, A., 672.
- $\beta$ -Phenylglyceric acid ( $\alpha\beta$ -dihydroxyphenylpropionic acid) (LIPP), 1883, A., 994; (FITTIG and RUER), 1892, A., 986.
- Phenylglycerol (dihydroxyphenoxypropane) (LINDEMANN), 1891, A., 1198.
- Phenylglycerosazone (FISCHER and TAFEL), 1887, A., 651.
- Phenylglycidic acid ( $\beta$ -phenylhydroxyacrylic acid) (PLÖCHL), 1884, A., 604; 1887, A., 254; (ERLENMEYER), 1887, A., 142, 1046; (WISLICENUS), 1887, A., 587.
- Phenylglycidic acid ( $\beta$ -phenylhydroxyacrylic acid), synthesis of (ERLENMEYER), 1889, A., 990.
- sodium salt of, behaviour of ammonia and organic bases with (ERLENMEYER), 1889, A., 988.
- o*- and *p*-nitro- (LIPP), 1887, A., 142.
- Phenylglycidic acids, optically active (ERLENMEYER), 1891, A., 1482.
- o*-Phenylglycinecarboxylic acid. See Carboxyanilidoacetic acid.
- Phenylglycinmethylanilide. See Phenylamidoacetomethylanilide.
- Phenylglycinphenylamidoacetic acid. See Anilidoacetanilidoacetic acid.
- Phenylglycocine. See Anilidoacetic acid.
- "Phenylglycocinesulphonic acid" (ZEHENTER), 1885, A., 55, 1235.
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- Phenylglycuronic acid (KÜLZ), 1885, A., 283; 1890, A., 1286.
- Phenylglyoxal (v. PECHMANN), 1888, A., 146; (MÜLLER and v. PECHMANN), 1890, A., 51.
- hydrate (v. PECHMANN), 1888, A., 146.
- 1-Phenylglyoxaline (WOHL and MARCKWALD), 1892, A., 624.
- 2-Phenylglyoxaline (MAQUENNE), 1891, A., 331.
- 2-Phenylglyoxalinedicarboxylic acid (MAQUENNE), 1890, A., 1440.
- Phenylglyoxalmethylphenylosazone (CULMANN), 1888, A., 1287.
- 1-Phenylglyoxalylmercaptide (WOHL and MARCKWALD), 1892, A., 624.
- Phenylglyoxime (SCHRAMM), 1884, A., 52; (STRASSMANN), 1889, A., 610.
- peroxide (SCHOLL), 1891, A., 316.
- Phenylglyoximes (RUSSANOFF), 1892, A., 321.
- Phenyl-*amphi*- and -*syn*-glyoximecarboxylic acids (NUSSBERGER), 1892, A., 1177.
- Phenylglyoxylic acid, formation of, from benzoic cyanide (v. BUCHKA), 1887, A., 487.
- preparation of, from acetophenone (v. BUCHKA and IRISH), 1887, A., 483.
- condensation products of (HOMOLKA), 1885, A., 758.
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- Phenylglyoxylic acid**, phenylhydrazone and phenylethylhydrazone of (ELBERS), 1885, A., 534.
- Phenylglyoxylic acid**, *o*-amido-. See Isatinic acid.
- amidocyano- (GRIESS), 1885, A., 1226.
- o*-nitro-, hydrazone, isomeric form of (KRAUSE), 1891, A., 302.
- methylphenylhydrazone (FEHRLIN), 1890, A., 1118.
- o*- and *m*-nitro-, hydrazone (FEHRLIN), 1890, A., 1117.
- Phenylglyoxylic lactim**, *o*-amido-. See Isatin.
- Phenylglyoxylic-*o*-toluidide** (NEF), 1892, A., 1442.
- Phenyl-group**, negative nature of the (MEYER), 1887, A., 572.
- Phenylguanazole** (PELLIZZARI), 1892, A., 356.
- Phenylguanidine picrate** (PRELINGER), 1892, A., 950.
- i*-Phenylgulosazone** (FISCHER and CURTISS), 1892, A., 823.
- p*-bromo- (FISCHER and CURTISS), 1892, A., 823.
- Phenylhalogenacrylic acids** (ERLENMEYER), 1883, A., 196.
- Phenylheptonitrile**. See Phenylamyl-acetonitrile.
- Phenylhexamethylene**, derivatives of (KIPPING and PERKIN), 1889, P., 161; 1890, T., 304.
- Phenylhexamethylene methyl ketone and ketoxime** (KIPPING and PERKIN), 1890, T., 320.
- Phenylhexamethylenecarboxylic acid** (KIPPING and PERKIN), 1890, T., 316, 322.
- Phenylhexamethylenedicarboxylic acid** (KIPPING and PERKIN), 1890, T., 315.
- s*-Phenyl- $\psi$ -hexylcarbamide** (FREUND and HERRMANN), 1890, A., 474.
- Phenylhexyldihydro- $\beta$ -naphthatriazine** (GOLDSCHMIDT and POLTZER), 1891, A., 841.
- Phenylisohexylene and its dibromide** (SCHRAMM), 1883, A., 977.
- s*-Phenyl- $\psi$ -hexylthiocarbamide** (FREUND and HERRMANN), 1890, A., 474.
- Phenylhexyltriazolecarboxylic acid** (BLADIN), 1892, A., 597.
- Phenylhippuric acid** (KOSSEL), 1892, A., 468.
- Phenylhomoitamalic acid**. See Hydroxybenzylpyrotartaric acid.
- Phenylhomoparaconic acid**, and its salts (PENFIELD), 1883, A., 473.
- Phenylisohomoparaconic acid** (FITTIG), 1888, A., 252.
- $\alpha$ -Phenylhydantoic acid** (PINNER), 1888, A., 1103.
- $\alpha$ -Phenylhydantoic amide** (PINNER and SPILKER), 1889, A., 706.
- $\alpha$ -Phenylhydantoin** (PINNER), 1888, A., 1102.
- $\gamma$ -Phenylhydantoin** (GUARESCHI), 1892, A., 828.
- $\psi$ -Phenylhydantoin** (PINNER), 1888, A., 1102.
- Phenylhydracrylic acid**. See  $\beta$ -Hydroxyphenylpropionic acid.
- Phenylhydrazides**, formation of (FISCHER and PASSMORE), 1890, A., 152.
- Phenylhydrazidoacetic acid** (ELBERS), 1885, A., 585.
- asymmetrical (REISSERT and KAYSER), 1891, A., 1054.
- Phenylhydrazidobenzylidenephénylhydrazone**. See Benzenyldiphenylazidine.
- $\alpha$ -Phenylhydrazidobutyramide** (v. MILLER and PLÖCHL), 1892, A., 1192.
- $\alpha$ -Phenylhydrazidobutyric acid** (JAPP and KLINGEMANN), 1888, T., 538.
- as*-Phenylhydrazidobutyric acid** (LEDERER), 1892, A., 635.
- $\alpha$ -Phenylhydrazidoisobutyric anhydride** (REISSERT), 1884, A., 1153.
- $\alpha$ -Phenylhydrazidoisobutyrimide and isobutyronitrile** (REISSERT), 1884, A., 1152.
- Phenylhydrazido-*o*- and -*p*-cresetols** (NÖLTING and WERNER), 1891, A., 212.
- $\psi$ -Phenylhydrazido- $\alpha$ -hydroxybutyric acid**, and its derivatives (REISSERT and KAYSER), 1890, A., 155.
- $\psi$ -Phenylhydrazidomandelic acid** (REISSERT and KAYSER), 1890, A., 156.
- nitroso- (REISSERT and KAYSER), 1891, A., 439.
- 2'-Phenylhydrazido-4'-methylquinoline (2'-phenylhydrazolepidine)** (EPHRAIM), 1892, A., 1488.
- Phenylhydrazidophenylacetic acid** (ELBERS), 1885, A., 534; (REISSERT and KAYSER), 1891, A., 438.
- Phenylhydrazidophenylbiazolon** (FREUND and KUH), 1890, A., 1441.
- Phenylhydrazidophenyl-mono- and -dithiobiazolones** (FREUND and KUH), 1890, A., 1441.
- $\alpha$ -Phenylhydrazidopropionic acid** (FISCHER and JOURDAN), 1884, A., 53; (v. MILLER and PLÖCHL), 1892, A., 1196; (REISSERT), 1892, A., 1456.
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*m*-nitro- (BISCHLER and BRODSKY), 1890, A., 150.  
*p*-thio- (RUHL), 1891, A., 301; 1892, A., 1326.  
 thionyl- (MICHAELIS), 1889, A., 1163; 1891, A., 717; (MICHAELIS and RUHL), 1890, A., 617.  
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- Phenylhydrazines** (WILLGERODT and FERKO), 1888, A., 829.  
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*s*-nitro-, of the aromatic series (WILLGERODT), 1890, A., 40.
- "Phenylhydrazine-alloxan"** (SKINNER and RUHEMANN), 1888, T., 557.
- Phenylhydrazinedisulphonic acids, *m*- and *p*-** (*hydrazinebenzenedisulphonic acids*) (LIMPRICHT), 1889, A., 397.
- Phenylhydrazinehydroxyazonaphthalenesulphonic acid** (RICHARDSON), 1888, A., 1286.
- Phenylhydrazineketophenylmethylpyrazolone**. See Phenylmethylpyrazoloneazobenzene under Azo.
- Phenylhydrazinesulphonic acid, *di*-bromo-** (LIMPRICHT), 1889, A., 398.
- Phenylhydrazine-*o*-sulphonic acid, 5-amido-, and 5-nitro-** (LIMPRICHT), 1885, A., 1216.



- Phenylhydrazine-*m*-sulphonic acid** (LIMPRICHT), 1889, A., 397.
- Phenylhydrazine-*p*-sulphonic acid** (LIMPRICHT), 1885, A., 1216; (PFÜLF), 1887, A., 933.
- o*-amido-, and *o*-nitro- (NIETZKI and LERCH), 1889, A., 144; (LERCH), 1889, A., 881.
- Phenylhydrazinesulphonic acids**, *o*- and *p*-, and their salts (GALLINEK and v. RICHTER), 1886, A., 237.
- Phenylhydrazones** (RUDOLPH), 1889, A., 251; (FISCHER and ACH), 1890, A., 40.
- Phenylhydrindone** (v. MILLER and ROHDE), 1892, A., 1220; (LIEBERMANN and HARTMANN), 1892, A., 1228.
- Phenylhydroacridine** and its derivatives (BERNTHSEN and BENDER), 1883, A., 1134, 1135.
- Phenylhydrocarbazacridine** (BIZZARRI), 1891, A., 220.
- Phenylhydrocarbostyryl** (OGLIALORO-TODARO and ROSINI), 1891, A., 214.
- α*-Phenylhydrocinnamic acid**. See Phenylbenzylacetic acid.
- Phenylhydrocoumarin** (LIEBERMANN and HARTMANN), 1891, A., 1484.
- Phenylhydrouracil** (HOOGWERFF and VAN DORP), 1891, A., 197.
- Phenylhydroxybenzoic acid**. See Phenylsalicylic acid.
- Phenyl-1:2-hydroxylamine**, 4:6-*d*-nitro- (WILLGERODT), 1891, A., 638; 1892, A., 594.
- Phenylisohydroxybutyrolactone** (FITTING and OBERMÜLLER), 1892, A., 987.
- 2'-Phenyl-4'-hydroxy-2-ketotetrahydroquinazoline** (PINNER), 1890, A., 70.
- Phenylhydroxy-**. See also Hydroxyphenyl-.
- Phenylic salts**, action of sodium mercaptide on (SEIFERT), 1885, A., 1057.
- acetate, action of chlorine and bromine on (SEELIG), 1889, A., 599.
- crystallised (PERKIN), 1889, P., 106.
- o*-acetate (HEIBER), 1892, A., 308.
- acetylsalicylate and its nitro-derivatives (KNEBEL), 1891, A., 915.
- amidoethylic acetate (ELFELDT), 1892, A., 214.
- anthranilate (SCHMIDT), 1888, A., 371.
- benzenesulphonate (OTTO), 1886, A., 883; (GEORGESCU), 1891, A., 568.
- Phenylic benzenethiosulphonate** (ESCALES), 1885, A., 798.
- benzoate, *tribromo*-, and its nitro-derivative (DACCOMO), 1885, A., 890.
- o*-, *m*-, and *p*-chloro- (MOSSO), 1888, A., 456; (DACCOMO), 1892, A., 308.
- chlorodibromo*- (GARZINO), 1890, A., 1108.
- o*-, *m*-, and *p*-nitro- (NEUMANN), 1886, A., 350, 939; 1887, A., 254.
- o*-nitro-, reduction of (BÖTTCHER), 1885, A., 658.
- nitroso- (WALKER), 1884, A., 1003.
- bromide. See Benzene, bromo-.
- butyrate (PERKIN), 1889, T., 547.
- carbamate (GATTERMANN), 1888, A., 575.
- carbonate, reactions of (ECKENROTH and RÜCKEL), 1890, A., 750.
- dibromo*-, *dinitro*-, and *nitramido*- (LÖWENBERG), 1886, A., 789.
- chloride. See Benzene, chloro-.
- trichlorophosphate* (LAMPERT), 1886, A., 616.
- cinnamate (ANSCHÜTZ and WIRTZ), 1885, T., 901; (ANSCHÜTZ), 1885, A., 1064.
- action of heat on (ANSCHÜTZ and WIRTZ; ANSCHÜTZ), 1885, A., 1064.
- decomposition of, by heat (ANSCHÜTZ), 1885, T., 898.
- citrate and the action of sodium mercaptide on (SEIFERT), 1885, A., 1057.
- cyanate, preparation of (HENTSCHEL), 1884, A., 1002; (KÜHN and LIEBERT), 1890, A., 962.
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- action of benzene and its homologues on (LEUCKART), 1885, A., 773.
- action of hydroxylamine on (FISCHER), 1889, A., 1164.
- action of, on phenols and phenol ethers (LEUCKART and SCHMIDT), 1885, A., 1224.
- action of, on polyhydric alcohols (TESMER), 1885, A., 774; 1886, A., 49.
- action of, on polyhydric and certain monohydric alcohols and phenols (SNAPE), 1885, T., 770.
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**Phenyl cyanate**, derivatives of (GUMPERT), 1885, A., 656.  
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*isocyanide*, preparation and properties of (NEF), 1892, A., 1438.  
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*o-amido-*, and *o-nitro-* (LELLMANN and BONHÖFFER), 1887, A., 936.  
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 ethylphenyl-*mono-* and *-di-*thiocarbamates (BILLETER and STROHL), 1888, A., 365.  
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*o-formate* (TIEMANN), 1883, A., 340.  
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*p-hydroxybenzoate* (KLEPL), 1884, A., 448.

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- Phenyl succinate**, decomposition of, by heat (ANSCHÜTZ and WIRTZ), 1885, T., 899; (ANSCHÜTZ), 1885, A., 1065.
- sulphide**, chloro- (MICHAELIS and GODCHAUX), 1891, A., 715.
- dinitro-** (AUSTEN and SMITH), 1886, A., 693.
- disulphide**, *o*-amido- (v. HOFMANN), 1887, A., 823.
- m*-nitro-** (LEUCKART), 1890, A., 604.
- p*-nitro-** (WILLGERODT), 1885, A., 519.
- tetrasulphide** (OTTO), 1887, A., 923.
- $\Delta^1$ -tetrahydrotetraphthalate** (v. BAEYER and HERB), 1890, A., 1133.
- $\Delta^{2,3,4}$ -tetrahydrotetraphthalate** (v. BAEYER and HERB), 1890, A., 1134.
- o*-thioacetate** (LAVES), 1892, A., 612.
- thioallophanate** (GATTERMANN), 1889, A., 575.
- thiobenzenesulphonate**, reduction of (OTTO and RÖSSING), 1887, A., 954.
- thiobenzoate**,  *$\alpha$* -dinitro- (WILLGERODT), 1885, A., 519.
- thiocarbonate** (BERGREEN), 1888, A., 445.
- dithiocarbonate** (LÖWENBERG), 1886, A., 789.
- chloro-** (DACCOMO), 1892, A., 306, 307.
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- diamido-** (AUSTEN), 1889, A., 700.
- dinitro-** (AUSTEN and SMITH), 1886, A., 693.
- thiodi- $\beta$ -naphthylcarbamate** (PASCHKOWETZKY), 1892, A., 166.
- thiodiphenylcarbamate** (PASCHKOWETZKY), 1892, A., 164.
- trithioformate**, oxidation of (LAVES), 1890, A., 988.
- tolylcarbamates**, *o*- and *p*- (ECKENROTH and RÜCKEL), 1890, A., 750.
- p*-tolylid disulphide** (OTTO and RÖSSING), 1887, A., 242.
- xanthate**, chloro- (DACCOMO), 1892, A., 308.
- Phenylimidoacetone**, oxime of (KNORR), 1884, A., 1363; (HOLLEMAN), 1892, A., 985.
- Phenylimidoalloxan** (PELLIZZARI), 1888, A., 682.
- Phenylimidobenzil** (BANDROWSKI), 1889, A., 147.
- Phenylimidobenzoin** (VOIGT), 1886, A., 887.
- action of hydrocyanic acid on** (v. MILLER and PLÖCHL), 1892, A., 1196.
- Phenylimidobenzoin**, bromo- (VOIGT) 1886, A., 888.
- Phenylimidobromacetic acid** (KNORR and ANTRICK), 1885, A., 273.
- Phenyl- $\beta$ -imidobutyric acid**, synthesis of (KNORR), 1884, A., 1198.
- action of nitrous acid on** (KNORR), 1884, A., 1368.
- Phenylimidocarbonyl chloride** (NEF), 1892, A., 1439.
- Phenylimidocyanamide** (PELLIZZARI and TIVOLI), 1892, A., 1323.
- Phenylimidodiacetic acid** (BISCHOFF and NASTVOGEL), 1889, A., 1013.
- Phenylimidodiacetic anhydride** (BISCHOFF and HAUSDÖRFER), 1892, A., 1334.
- Phenylimidodiacetic anilide and dianilide** (HAUSDÖRFER), 1889, A., 1014.
- Phenylimidodiphenylguanidine** (MARCKWALDT), 1889, A., 393.
- Phenylimidoformic chloride hydrochloride** (NEF), 1892, A., 1440.
- Phenylimidoguanidine** (PELLIZZARI), 1891, A., 1471.
- action of ethylic acetoacetate on** (PELLIZZARI), 1891, A., 1472.
- Phenylimidomethylpropionylacetone** (BOUVEAULT), 1891, A., 52.
- Phenylimidomucohydroxy-bromic and -chloric acids** (HILL and PALMER), 1888, A., 452.
- Phenylimidophenyl** (SEIFERT), 1890, A., 490.
- Phenylimidopropionic acid** (*anilpyruvic acid*) (BÖTTINGER), 1883, A., 1128; 1891, A., 1054.
- condensation of** (BÖTTINGER), 1892, A., 54.
- bromo-derivative of** (BÖTTINGER), 1883, A., 1128.
- Phenylimidopropionic chloride** (NEF), 1892, A., 1440.
- Phenylimidopropionitrile** (*benzoylmethylid cyanide, imido-*) (HOLTZWART), 1889, A., 683.
- $\alpha$ -Phenylimidopropionitrile** (ERLENMEYER and LIPP), 1883, A., 992.
- Phenylimidopyrrolypyruvic acid and anhydride** (ANGELI), 1890, A., 1243.
- $\mu$ -Phenylimidothiazoline** (NÄF), 1891, A., 1517.
- 2'-Phenylindazine** (PAAL), 1891, A., 723.
- p*-chloro-** (PAAL), 1891, A., 724.
- 1'-Phenylindazine-3'-carboxylic acid**, nitro-, action of stannous chloride on (SCHULHÖFER), 1891, A., 1231.
- 1'-Phenyl- $\psi$ -indazine-3'-carboxylic acid**, nitro- (MEYER), 1889, A., 517.



- 1'-Phenylindole (PRÜLF), 1887, A., 956.
- 2'-Phenylindole and its derivatives (ETARD), 1883, A., 179; (PICTET), 1886, A., 711; (FISCHER and SCHMIDT), 1888, A., 698; (BISCHLER), 1892, A., 1465.  
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- 3'-Phenylindole (FISCHER and SCHMIDT), 1888, A., 958.  
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- Phenylindoles, formation of, by isomeric change (INCE), 1889, P., 90.
- 1'-Phenylindole-3'-carboxylic acid, synthesis of (FISCHER and HESS), 1884, A., 1181.
- Phenylinduline (FISCHER and HEPP), 1891, A., 1046.  
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- Phenyl- $\psi$ -isatin (PRÜLF), 1887, A., 956.
- Phenylitaconic acid (FITTIG and LEONI), 1890, A., 894; (FITTIG and RÜDERS), 1890, A., 895.
- Phenylitamalic acid. See Hydroxyphenylpyrotartaric acid.
- Phenylum-. See Phenylammonium.
- Phenylizedihydroxytartaric acid (ZIEGLER and LOCHER), 1887, A., 578.  
*m*-nitro- (BISCHLER and BRODSKY), 1890, A., 151.
- 3'-Phenyl-2'-ketodihydroquinazoline (SÖDERBAUM and WIDMAN), 1890, A., 178.
- 3'-Phenyl-4'-ketodihydroquinazoline (PAAL and BUSCH), 1890, A., 72; (PAAL and KRECKE), 1892, A., 81.
- 3'-Phenyl-4'-ketodihydroquinazoline-2'-carboxylic acid (PAAL and KRECKE), 1892, A., 81.
- 3'-Phenyl-4'-ketohydrazodihydroquinazoline (PAAL and BUSCH), 1890, A., 72.
- Phenylketohydroxybutyric acid (FISCHER and STEWART), 1892, A., 1448.
- Phenylketohydroxydimethylanilido-tetrahydropyridinecarboxylic lactone, real nature of (ANSCHÜTZ), 1891, A., 741.
- Phenylketopentene. See Phenylmethylfurfuran.
- 1-Phenylketopyrazolone 4-phenylhydrazone (KNORR), 1888, A., 724.
- 1-Phenylketopyrazolone-3-carboxylic acid 4-phenylhydrazone (KNORR), 1888, A., 724.
- 3'-Phenyl-2'-ketotetrahydroquinazoline and its derivatives (SÖDERBAUM and WIDMAN), 1889, A., 973; (NIETZKI), 1890, A., 178; (PAAL and BODEWIG), 1891, A., 944; (BUSCH), 1892, A., 1495.
- Phenyl- $\alpha$ -lactic acid,  $\beta$ -amido- (ERLENMEYER), 1889, A., 988.  
*p*-amido- (ERLENMEYER and LIPP), 1883, A., 994.  
nitro-, nitrate of (ERLENMEYER and LIPP), 1883, A., 993.
- Phenyl- $\beta$ -lactic acid. See  $\beta$ -Hydroxyphenylpropionic acid.
- Phenyl- $\beta$ -lactic methyl ketone. See  $\beta$ -Hydroxyphenylpropionyl methyl ketone.
- Phenyllactimide (ERLENMEYER and LIPP), 1883, A., 993.
- Phenyl- $\alpha$ -lactonitrile (ERLENMEYER and LIPP), 1883, A., 992.
- Phenyllactosazone (FISCHER), 1885, A., 54; 1887, A., 567.
- Phenyl- $\beta$ -lacturamic acid (HOOGWERFF and VAN DORP), 1891, A., 197.
- Phenyllepidineamine. See 2'-Anilido-4'-methylquinoline.
- $\alpha$ -Phenyllevulinic acid (FITTIG and STERN), 1892, A., 988.
- $\gamma$ -Phenylpupetidine. See 4-Phenyl-2:6-dimethylhexahydropyridine.
- Phenyllutidine. See 4-Phenyl-2:6-dimethylpyridine.
- Phenyllutidone. See Phenyl-2:6-dimethylpyridone.
- Phenylmaleic acid and anhydride (ALEXANDER), 1890, A., 1136.
- Phenylmalic acids,  $\alpha$ - and  $\beta$ - ( $\alpha$ - and  $\beta$ -hydroxy- $\alpha$ -phenylsuccinic acids) (ALEXANDER), 1890, A., 1135.
- Phenylmalonamic acid. See Malonanilic acid.
- Phenylmalonamide (FREUND), 1884, A., 728.
- Phenylmaltosazone (FISCHER), 1885, A., 54; 1887, A., 567.
- Phenylmannosazone (FISCHER and HIRSCHBERGER), 1888, A., 934.
- Phenylmelamine (KLASON), 1886, A., 523.
- Phenylmelamines and their derivatives: normal-, iso-, and asymmetric-compounds (V. Hofmann), 1886, A., 233.
- Phenylmelilotic acid, synthesis of (SARDO), 1884, A., 176.
- Phenylmercaptan-benzoylformic acid and the action of hydrogen chloride on (BAUMANN), 1885, A., 750.

- Phenylmercaptomethylmercaptan**, amido- (JACOBSON and FRANKENBACHER), 1891, A., 1048.
- Phenylmesitylenylcarbinol** (*phenyltrimethylphenylcarbinol*) and its derivatives (LOUISE), 1886, A., 542.
- Phenylmethaneazobenzene**, *o*-nitro- (PAAL and BODEWIG), 1892, A., 1456.
- Phenylmethenylazidine** (FISCHER), 1889, A., 1164.
- Phenylmethenylhydroxyamidine** (*hydroxyphenylformamidine*) (COMSTOCK and CLAPP), 1892, A., 708.
- Phenylmethoxytolylethanes** (KOENIGS and CARL), 1892, A., 446.
- Phenylmethylacridine** (BONNA), 1887, A., 928.  
ethoxide and hydroxide (DECKER), 1892, A., 881.
- Phenylmethylacrylic acid**. See Phenylcrotonic acid.
- Phenylmethylallylpyrroline** (LEDERER and PAAL), 1886, A., 75.
- Phenylmethylallylpyrrolinecarboxylic acid**, and its ethylic salt (LEDERER and PAAL), 1886, A., 75.
- Phenylmethylamidobenzeneazotri-bromobenzene** (SILBERSTEIN), 1883, A., 662.
- Phenylmethylamidobenzeneazodiphenylmethylamine** (LIPPMANN and FLEISSNER), 1884, A., 180.
- Phenylmethylamidobenzenephosphinic acid and chloride** (MICHAELIS and SCHENK), 1891, A., 437.
- $\alpha$ -Phenyl- $\mu$ -methylamidothiazole** (TRAUMANN), 1889, A., 415.
- Phenylmethylantracene** (v. HEMI-LIAN), 1884, A., 322.
- Phenylmethylantranol** (v. HEMI-LIAN), 1884, A., 322; 1887, A., 266.
- Phenylmethylbiazoline** (FREUND and KUH), 1890, A., 1442.
- Phenyl- $\alpha$ -methyl- $\beta$ -bromacrylic acid** (KÖRNER), 1889, A., 372.
- as*-Phenylmethylcarbamide** (GEBHARDT), 1884, A., 1321.
- Phenylmethyldichlorobiazolone** (FREUND and KUH), 1890, A., 1441.
- Phenylmethylchloroformamide**, compounds from (LELLMANN and BENZ), 1891, A., 1214.
- 2'-Phenyl-1- and -3-methyl-4'-cinchonic acids** (DOEBNER and GIESEKE), 1888, A., 300.
- Phenyl- $\alpha$ - and - $\beta$ -methylisocrotonic acids** (*phenylpentenoic acid*) (FITTIG and LIEBMANN), 1890, A., 775.
- Phenylmethylecyantriazole** (BLADIN), 1887, A., 138.
- 2-Phenyl-6-methyl-*m*-diazine**, amido-, and diamido- (PINNER), 1887, A., 1054.
- Phenylmethyldihydro- $\beta$ -naphthatriazine**, and methiodide of (GOLDSCHMIDT and POLTZER), 1891, A., 840, 841.
- 3'-Phenyl-2'-methyl-dihydroquinazoline** (PAAL and KRECKE), 1890, A., 1443; 1892, A., 81.
- Phenylmethyldihydroxyglutaric acid** (*dihydroxyphenylmethylglutaric acid*) (CARLSON), 1892, A., 1471.
- Phenylmethyldiphenylazimethylene** (CURTIUS and PFLUG), 1892, A., 457.
- Phenylmethylenehydrazine** (CURTIUS and PFLUG), 1892, A., 456.
- Phenylmethylethylalkine**. See Hydroxyethylmethylaniline.
- Phenylmethylethylenediamine** (NEWMAN), 1891, A., 1208.
- n*-Phenylmethylethylsotriazole** (BALTZER and v. PECHMANN), 1891, A., 1116.
- 1-Phenyl-4-methyl-3-ethylpyrazole** (CLAISEN and MEYEROWITZ), 1890, A., 358.  
5-amido- (BOUVEAULT), 1891, A., 52.
- 1-Phenyl-4-methyl-5-ethylpyrazole platinochloride** (BALBIANO), 1892, A., 885.
- 1-Phenyl-3-methyl-4-ethylpyrazolone** (KNORR and BLANK), 1884, A., 1380.
- Phenylmethylethylthiocarbamide** (GEBHARDT), 1885, A., 383; (BILLETER), 1887, A., 823.
- Phenylmethylfumaramic acid** (PIUTTI), 1886, A., 792.
- Phenylmethylfumaride** (PIUTTI), 1886, A., 621.
- Phenylmethylfurfuran and its derivatives** (PAAL), 1885, A., 248; (SCHLOESSER), 1889, A., 595.
- Phenylmethylfurfurancarboxylic acid** (PAAL), 1885, A., 249.  
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- Phenylmethylfurfurandicarboxylic acid** (*phenylthronic acid*) (FITTIG and SCHLOESSER), 1888, A., 1089; (SCHLOESSER), 1889, A., 595.
- Phenylmethylglucosazone** (FISCHER), 1889, A., 484.
- Phenylmethylglycoluric acid**. See Phenylmethyluramidobenzoic acid.
- 2:5-Phenylmethylglyoxaline** (LEWY), 1888, A., 1102.
- Phenylmethylhydantoic acid** (KÜHN), 1885, A., 261.
- Phenylmethylhydantoin** (PINNER), 1888, A., 1103.

- Phenylmethylhydrazine** and its salts (ERLENMEYER), 1883, A., 1103; (TAFEL), 1885, A., 1061; (FISCHER), 1887, A., 138.  
 derivatives of (STAHEL), 1890, A., 1259.  
*o*-amido- (HEMPEL), 1890, A., 613.  
 thionyl- (MICHAELIS and RUHL), 1892, A., 1324.
- Phenylmethylhydrazinephenylglyoxylic acid** (ELBERS), 1885, A., 535.
- Phenylmethylhydrazinesulphonic acid** (PFÜLF), 1887, A., 934.
- 1:5-Phenylmethylhydroisopyrazolone** (LEDERER), 1892, A., 635.
- 2'-Phenyl-3'-methylhydroquinoline**, *m*-amido- (v. MILLER and KINKLIN), 1886, A., 561.
- Phenylmethylhydroxyanthranol** (v. HEMILIAN), 1887, A., 267.
- Phenylmethylimidobiazole** (FREUND and KUH), 1890, A., 1442.
- $\alpha$ -Phenylmethyl- $\mu$ -imidothiazoline** (TRAUMANN), 1889, A., 415.
- 2'-Phenyl-1-methylindole** (BISCHLER), 1892, A., 1465.
- 2'-Phenyl-3-methylindole** (BISCHLER), 1892, A., 1466.
- 2'-Phenyl-1'-methylindole** (DEGEN), 1887, A., 149; (STAEDL), 1888, A., 1093.
- 3'-Phenyl-1'-methylindole** (INCE), 1890, A., 57.
- 3'-Phenyl-2'-methylindole** (TRENKLER), 1889, A., 260.
- 3':2'-Phenylmethyl-4'-ketodihydroquinazoline** (PAAL and KRECKE), 1892, A., 81.
- 1-Phenyl-3-methylketopyrazolone-4-hydrazone** (KNORR), 1888, A., 724.
- Phenylmethylketoxime-*o*-carboxylic acid**, anhydride of (GABRIEL), 1883, A., 1128.
- $\beta$ -Phenyl- $\alpha$ -methylactic acid**. See Hydroxy- $\beta$ -phenyl- $\alpha$ -methylpropionic acid.
- Phenylmethylmethylenebisthioglycollic acid** (BONGARTZ), 1888, A., 479.
- 1-Phenyl-3-methyl-4-methylenehydrazine** (CURTIUS and PFLUG), 1892, A., 457.
- 1-Phenyl-3-methyl-4-methylenepyr-azolone** (PELLIZZARI), 1889, A., 518.
- Phenyl-*ald*-methyl-naphthatriazine**, *az-p*-nitro- (MELDOLA and FORSTER), 1891, T., 697.  
 reduction of (MELDOLA and FORSTER), 1891, T., 712.
- Phenylmethyl- $\beta$ -naphthylamine**, thio- (KYM), 1890, A., 1307.
- Phenylmethylnitramine**, 2:3:4:6-*tetra*-nitro-, and its conversion into *m*-phenylenediamine derivatives (VAN ROMBURGH), 1889, A., 1154.
- Phenylmethylnitrosamine**, constitution of (ERLENMEYER), 1883, A., 1103.  
*p*-nitro- (FISCHER and HEPP), 1887, A., 244; (MELDOLA and SALMON), 1888, T., 775.  
*p*-nitroso- (FISCHER and HEPP), 1887, A., 244.  
 See also Methylaniline, nitroso-.
- n*-Phenylmethylsotriazole** and its derivatives (JONAS and v. PECHMANN), 1891, A., 1111.
- n*-Phenylmethylsotriazolecarboxylic acid** (BALTZER and v. PECHMANN), 1891, A., 1115.
- n*-Phenylmethylsotriazolesulphonic acid** (JONAS and v. PECHMANN), 1891, A., 1112.
- Phenylmethylsotriazone** (v. PECHMANN), 1888, A., 1289.
- Phenylmethyloxazole** (LEWY), 1888, A., 593, 1101.
- Phenylmethyl-*iso*-oxazole** (HANTZSCH), 1891, A., 741.
- Phenylmethyloxanthranol** (v. HEMILIAN), 1884, A., 322.
- $\mu\beta$ -Phenylmethyloxazoline** (GABRIEL and HEYMANN), 1890, A., 1267.  
*m*-nitro- (ELFELDT), 1892, A., 214.
- Phenylmethylparaconic acids**,  $\alpha$ - and  $\beta$ - (FITTIG and LIEBMANN), 1890, A., 775.
- Phenyl- $\alpha$ -methylpiperidine**, *o-p*-dinitro- (LELMANN and JUST), 1891, A., 1245.
- Phenyl- $\beta$ -methylpiperidine**, *p*-nitro-, and *o-p*-dinitro- (LELMANN and BÜTTNER), 1890, A., 1003.
- Phenylmethylpropionic acid**. See Methylhydrocinnamic acid and Tolypropionic acid.
- Phenylmethylpropylalkine**. See Hydroxypropylmethylaniline.
- 1-Phenyl-3-methyl-4-isopropylenepyr-azolone** (KNORR), 1887, A., 602.
- Phenylmethylpropylene- $\psi$ -thiocarb- amide** (PRAGER), 1890, A., 159.
- 1-Phenyl-3-methylpyrazole** (CLAISEN and STYLOS), 1888, A., 671; (ACH), 1890, A., 71; (CLAISEN and ROOSEN), 1891, A., 1106.
- 1-Phenyl-5-methylpyrazole** (KNORR and LAUBMANN), 1889, A., 410; (CLAISEN and ROOSEN), 1891, A., 1106.
- 1-Phenyl-3-methylpyrazole-5-carb- oxylic acid** (ACH), 1890, A., 71.
- 1-Phenyl-5-methylpyrazole-3-carb- oxylic acid** (CLAISEN and STYLOS), 1888, A., 676; (CLAISEN and ROOSEN), 1891, A., 1107.



- 1-Phenyl-5-methylpyrazole-3:4-dicarboxylic acid (KNORR and LAUBMANN), 1888, A., 410.
- 1-Phenyl-3-methylpyrazolidone (KNORR and DUDEN), 1892, A., 731.
- 1-Phenyl-3-methylpyrazolone and its derivatives (KNORR), 1884, A., 1103; 1887, A., 601; (MÖLLENHOFF), 1892, A., 1245.
- action of sulphur dichloride on (SPRAGUE), 1891, T., 334.
- 4-mono- and di-bromo- (KNORR and DUDEN), 1892, A., 731.
- 4-dibromo-*p*-bromo- (KNORR and DUDEN), 1892, A., 731; (MÖLLENHOFF), 1892, A., 1246.
- 4-nitro- (KNORR), 1884, A., 302, 1153, 1378; 1887, A., 602; (KNORR and DUDEN), 1892, A., 731.
- 4-oxime (KNORR), 1887, A., 602.
- 4-thio- (4-thiobis-1-phenyl-3-methylpyrazolone) (v. BUCHKA and SPRAGUE), 1890, A., 796; (MICHAELIS), 1890, A., 1269; (SPRAGUE), 1891, T., 332, 335.
- Phenylmethylisopyrazolones, 1:2- and 1:5- (LEDERER), 1892, A., 635.
- 1-Phenyl-3-methylpyrazolone-4-acetic acid (KNORR and BLANK), 1884, A., 1380.
- Phenylmethylpyrazoloneazobenzene. See under Azo.
- 1-Phenyl-3-methylpyrazolone-4-carbinol and -4-malonylearbamide (PELLIZZARI), 1889, A., 518.
- 1-Phenyl-3-methylpyrazolone-4-ketophenylhydrazine (v. BUCHKA and SPRAGUE), 1890, A., 28.
- 1-Phenyl-3-methylpyrazolone-*p*-sulphonic acid (MÖLLENHOFF), 1892, A., 1245.
- 1-Phenyl-3-methylpyrazolone-*p*-sulphonic chloride, 4-dichloro- (MÖLLENHOFF), 1892, A., 1246.
- Phenyl- $\alpha$ -methylpyridazone, and  $\gamma$ -chloro- (ACH), 1890, A., 71.
- 4-Phenyl-2-methylpyrrodiazolone (ANDREOCCHI), 1890, A., 889.
- 1-Phenyl-2-methylpyrrolidone-2-carbonitrile and -carboxylic acid (KÜHLING), 1889, A., 1211, 1212.
- Phenylmethylpyrroline, synthesis of (PAAL), 1885, A., 516.
- 5-Phenyl-2-methylpyrroline-3-carboxylic acid (LEDERER and PAAL), 1886, A., 75.
- $\gamma$ -Phenyl- $\beta$ -methyl- and  $\beta$ -phenyl- $\gamma$ -methyl- $\psi$ -quinazolones (KÖRNER), 1887, A., 1045.
- 2'-Phenyl-1-methylquinoline (DOEBNER and GIESEKE), 1888, A., 300.
- 2'-Phenyl-2-methylquinoline, *p*-amido- (WEIDEL and BAMBERGER), 1888, A., 966.
- 2'-Phenyl-3'-methylquinoline, 4-amido-. See Flavaniline.
- m*-amido- and *m*-nitro- (v. MILLER and KINKELIN), 1886, A., 561.
- Phenyl-2'-methylquinoline, amido- (SCHIEFF and VANNI), 1890, A., 1298.
- 4'-Phenyl-2'-methylquinoline (*phenylquinaldine*) and its derivatives (GEIGY and KOENIGS), 1885, A., 1236.
- synthesis of (BEYER), 1886, A., 630.
- 2'-Phenylmethylquinoxaline, constitution of (LELLMANN and DONNER), 1890, A., 525.
- $\mu$ -Phenyl- $\alpha$ -methyl-selenazole and -selenazole- $\beta$ -carboxylic acid (HOFMANN), 1889, A., 727.
- Phenylmethylsemithiocarbazides (DIXON), 1890, T., 261; P., 26; (v. BRÜNING), 1890, A., 23.
- Phenylmethylsuccinic acids (ZELINSKY and BUCHSTAB), 1891, A., 1065.
- Phenylmethylsulphonamic acid, ammonium salt of (TRAUBE), 1891, A., 569.
- Phenylmethylsulphone (OTTO), 1885, A., 536.
- mono*- and *di*-chloro- (OTTO), 1888, A., 483; 1890, A., 380.
- iodo- (MICHAEL and PALMER), 1885, A., 536.
- Phenylmethyltaurine (*anilidoisethionic acid*) and its salts (ANDREASCH), 1883, A., 665.
- preparation of (JAMES), 1885, T., 372; P., 47.
- Phenyl- $\beta$ -methyltaurocarbamie anhydride (PRAGER), 1890, A., 159.
- Phenylmethyltetrahydrofurfuran (*phenylmethyltetramethylene oxide*) (PAAL), 1885, A., 250.
- properties of (COLEFAX), 1891, T., 194.
- Phenylmethyltetrahydroketoquinoxaline (GEORGESCU), 1892, A., 886.
- 1-Phenyl-2-methyltetrahydropyridine (LIPP), 1892, A., 1244.
- 3-Phenyl-1-methyltetrahydroquinoline, derivatives of (LA COSTE and SORGER), 1886, A., 81.
- 3'-Phenyl-2'-methyltetrahydroquinazoline (PAAL and KRECKE), 1892, A., 81.
- $\alpha$ -Phenyl- $\mu$ -methylthiazole (HANTZSCH), 1888, A., 574; 1889, A., 724.
- $\mu$ -Phenyl- $\alpha$ -methylthiazole (HUBACHER), 1891, A., 221.
- $\mu$ -Phenylmethylthiazoline and its derivatives (GABRIEL and HEYMANN), 1891, A., 701.

- Phenylmethylthiocarbamides** (GEBHARDT), 1884, A., 1321; 1885, A., 383.
- Phenylmethylthiocarbamine chloride and oxide** (BILLETER), 1887, A., 823.
- Phenylmethylthiohydantoin** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.
- 4:2-Phenylmethylthiophen** and its derivatives (PAAL and PÜSCHEL), 1887, A., 1101.
- 5:2-Phenylmethylthiophen**, synthesis of (PAAL), 1885, A., 516.
- Phenylmethyl-*p*-toluamide** (LELLMANN and BENZ), 1891, A., 1215.
- Phenylmethyltriazenylamidoxime derivatives** (BLADIN), 1889, A., 977.
- Phenylmethyltriazenylazoxime-benzenyl and -ethenyl** (BLADIN), 1889, A., 978.
- Phenylmethyltriazole** (BLADIN), 1887, A., 139.
- Phenylmethyltriazolecarboxylic acid and its derivatives** (BLADIN), 1887, A., 138; 1890, A., 1165; 1891, A., 472.
- p*-Phenylmethyluramidobenzoic acid (*p*-phenylmethylglycoluric acid)** (GUARESCHI), 1892, A., 828.
- Phenylmethylurethane** (GEBHARDT), 1885, A., 384.
- Phenylmethylxylylamide** (LELLMANN and BENZ), 1891, A., 1215.
- Phenylmethyl-**. See also Methylphenyl-.
- 1-Phenylmorpholine** (KNORR), 1889, A., 1219.
- $\alpha$ -Phenyl- $\alpha$ - and - $\beta$ -naphthacinchonic acids** (DOEBNER and KUNTZE), 1889, A., 411.
- $\beta$ -Phenyl-naphthalene** (SMITH), 1889, P., 70.
- Phenyl- $\beta$ -naphthaeridine** (RIS), 1884, A., 1357; (CLAUS and RICHTER), 1884, A., 1358.
- Phenyl-naphthaphenanthrazonium hydroxide and its salts** (WITT), 1887, A., 730.
- 2'-Phenyl- $\alpha$ - and - $\beta$ -naphthaquinolines** (DOEBNER and KUNTZE), 1889, A., 411, 412.
- Phenyl-naphthaquinone** from the hydrocarbon  $C_{16}H_{12}$  (ZINCKE and BREUER), 1885, A., 269.
- Phenyl- $\beta$ -naphthindoles**, 2'- and 3'- (INCE), 1890, A., 57.
- Phenyl- $\beta$ -naphthol**, diamido-, and 2:4-dinitro- (ERNST), 1891, A., 300.
- Phenyl-naphthostilborosindene** (WITT and SCHMIDT), 1892, A., 1247.
- Phenyl-naphthyl- acetic acid and -acetonitrile** (MICHAEL and JEANPRÉTRE), 1892, A., 1094.
- Phenyl- $\alpha$ -naphthylamine** (FRIEDLÄNDER), 1884, A., 80.
- 2:4-dinitro-** (HEIM), 1888, A., 488, 1096.
- (?) 4:2-nitramido-** (HEIM), 1888, A., 1096.
- thio-** (KYM), 1890, A., 1307.
- Phenyl- $\beta$ -naphthylamine** (FRIEDLÄNDER), 1884, A., 80.
- action of oxalic acid on** (MELDOLA), 1883, A., 807.
- amido-**. See Phenyl-naphthylenediamine.
- diamido-** (ERNST), 1891, A., 301.
- azo-derivatives of** (ZINCKE and LAWSON), 1887, A., 730; (ZINCKE), 1890, A., 990.
- 2:4-dinitro-** (HEIM), 1888, A., 488; (ERNST), 1891, A., 300.
- nitramido-** (HEIM), 1888, A., 488.
- thio-** (KYM), 1890, A., 1307.
- Phenyl-naphthylamine-blue** (HAUSDÖRFER), 1890, A., 1308.
- Phenyl- $\alpha$ -naphthylbiazolon** (FREUND), 1892, A., 509.
- Phenyl- $\beta$ -naphthylcarbamide** [m.p. 220°] (GOLDSCHMIDT and MOLINARI), 1888, A., 1284.
- as-Phenyl- $\beta$ -naphthylcarbamide** [m.p. 189°] and chloride (KYM), 1890, A., 633.
- Phenyl- $\alpha$ -naphthylcarbazole** (KYM), 1890, A., 1307.
- Phenyl-naphthylcarbazole**, boiling point of (SCHWEITZER), 1891, A., 1240.
- $\alpha$ -Phenyl-naphthylcarbinol** (BECKMANN), 1889, A., 781.
- Phenyl-*o*-naphthylenediamine** (ZINCKE and LAWSON), 1887, A., 730; (HARDEN), 1890, A., 631.
- action of benzaldehyde and of salicylaldehyde on** (FISCHER), 1892, A., 1472.
- action of nitrous acid on** (ZINCKE and CAMPBELL), 1890, A., 788.
- condensation of, with benzoïn** (FISCHER), 1891, A., 748.
- Phenyl-naphthylene-ethyldiamine** action of benzaldehyde on (FISCHER), 1892, A., 1472.
- Phenyl-naphthylethylazammonium iodide** (ZINCKE and CAMPBELL), 1890, A., 787.
- Phenyl- $\alpha$ -naphthylethylthiocarbamide** (MAINZER), 1883, A., 1106.
- Phenyl- $\alpha$ -naphthylformamidine** (COMSTOCK and WHEELER), 1892, A., 706.
- Phenyl- $\alpha$ -naphthylglycollic acid** (BECKMANN), 1889, A., 781; (BECKMANN and PAUL), 1892, A., 170.

- Phenyl- $\alpha$ - and - $\beta$ -naphthylhydrazines, *o,p*-dinitro- (WILLGERODT and SCHULZ), 1891, A., 572.
- 5-Phenyl- $\alpha$ - and - $\beta$ -1-naphthyl-2-methylpyrroline-3-carboxylic acids (LEDERER and PAAL), 1886, A., 76.
- Phenyl- $\beta$ -naphthylmethylthiocarbamide (GEBHARDT), 1884, A., 1321.
- ald*-Phenyl- $\alpha$ - $\beta$ -naphthyl-naphthatriazine (MELDOLA and FORSTER), 1891, T., 698.
- Phenyl-naphthylpinacolone (ELES), 1887, A., 943.
- Phenyl- $\alpha$ - and - $\beta$ -naphthylsemithiocarbazides (DIXON), 1892, T., 1019; (FREUND), 1892, A., 508.
- Phenyl- $\alpha$ -naphthyl- $\psi$ -thiobiazolone (FREUND), 1892, A., 510.
- Phenyl-naphthylthiocarbamides (MAINZER), 1883, A., 1107; (FREUND and WOLF), 1892, A., 984.
- Phenyl-nitrethylene. See Styrene, nitro-.
- Phenyl-nitrobenzenesulphazide, *m*- and *p*-nitro- (LIMPRICHT), 1887, A., 723.
- Phenyl-*m*-nitrobenzenylamidine (LOSSEN), 1892, A., 52.
- Phenyl-*o*-, *m*- and *p*-nitrobenzenyl-naphthylenediamines (FISCHER), 1892, A., 1473.
- Phenyl-*m*-nitrobenzimid-ether (LOSSEN), 1892, A., 52.
- Phenyl-*m*-nitrobenzylamine (BORGMANN), 1886, A., 57.
- Phenyl-di-*o*-nitrodibenzylhydrazine (PAAL and BODEWIG), 1892, A., 1456.
- Phenyl-nitromethane. See Toluene, nitro-.
- Phenyl-tetranitronaphthylamine (MERZ and WEITH), 1883, A., 344.
- Phenyl-*p*- and -*o*-nitrophenyl oxides, di- and tri-nitro- (*tri*- and *tetranitro*-diphenyl oxides) (WILLGERODT and HUETLIN), 1884, A., 1328.
- Phenyl-*o,p*-dinitrophenylcarbin cyanide, *p*-nitro- (*trinitro*diphenylacetone nitrile) (v. RICHTER), 1888, A., 1186.
- Phenyl-*m*-nitrophenylmethylcarbamide (*m*-nitro-*s*-diphenylmethylcarbamide) (LELLMANN and BENZ), 1891, A., 1215.
- $\alpha$ -Phenyl-*ald*-*m*- and -*p*-nitrophenyl-naphthatriazines and *p*- and *m*-nitro- (MELDOLA and FORSTER), 1891, T., 693.
- Phenyl-nitropropionic acid, *p*-nitro-, derivatives of (FRIEDLÄNDER and MÄHLY), 1885, A., 1137.
- Phenyl-dinitropropionic acid (GABRIEL), 1885, A., 1229.
- Phenyl-nitropropylene and its derivatives (PRIEBIS), 1884, A., 313; 1885, A., 161.
- Phenyl-nitrosoimidothiazoline (SCHATZMANN), 1891, A., 745; (NÄF), 1891, A., 1517.
- Phenyl-nitrososulphone (RÖSSING), 1890, A., 781.
- Phenyl-dinitrotoluidine ( $\gamma$ -dinitrotolyl-phenylamine) (HEPP), 1883, A., 317.
- Phenyl-*m*-nitro-*p*-tolylcarbamide (LEUCKART), 1890, A., 760.
- Phenyl-*o*-nitro-*p*-tolylthiocarbamide, *m*-nitro- (STEUEDEMAN), 1884, A., 307.
- Phenyl-nonyl-carbamide and -thiocarbamide (FREUND and SCHÖNFELD), 1892, A., 132, 133.
- Phenyl-octane. See Octylbenzene.
- Phenyl-octonitrile (*hexylbenzyl* cyanide) (ROSSOLYMO), 1889, A., 862.
- Phenyl-azoneglyoxalcarboxylic acid (NASTVOGEL), 1889, A., 237.
- n*-Phenylsotriazaldehyde (JONAS and v. PECHMANN), 1891, A., 1113.
- n*-Phenylsotriazole and its homologues (JONAS and v. PECHMANN), 1891, A., 1113.
- cyano- (JONAS and v. PECHMANN), 1891, A., 1114.
- n*-Phenylsotriazolecarboxylic acid and its derivatives (JONAS and v. PECHMANN), 1891, A., 1112.
- amido-, and nitro- (BALTZER and v. PECHMANN), 1891, A., 1116.
- n*-Phenylsotriazole-dicarboxylic acid (BALTZER and v. PECHMANN), 1891, A., 1116.
- n*-Phenylsotriazolethiamide (JONAS and v. PECHMANN), 1891, A., 1114.
- Phenylsotriazonecarboxylic acid (v. PECHMANN), 1888, A., 1289.
- n*-Phenylsotriazylamine and *n*-phenylsotriazyl alcohol (JONAS and v. PECHMANN), 1891, A., 1114.
- Phenyl-oxamic acid. See Oxanilic acid.
- $\mu$ -Phenyl-oxazoline (GABRIEL and HEYMANN), 1890, A., 1267.
- preparation of (GABRIEL and NEUMANN), 1892, A., 1332.
- m*-nitro- (ELFELDT), 1892, A., 213.
- Phenyl-oxazole (CLAISEN and STOCK), 1891, A., 451.
- Phenyl-oxazolone (PERKIN and STENHOUSE), 1891, T., 1005; (CLAISEN and ZEDEL), 1891, A., 468; (HANTZSCH), 1891, A., 740; (NUSSBERGER), 1892, A., 1177.



- Phenylisooxazolone**, oxime of (CLAISEN and ZEDEL), 1891, A., 468.
- Phenyloximidoacetic acids**,  $\alpha$ - and  $\beta$ - (MÜLLER), 1888, A., 1129; 1884, A., 584; (HANTZSCH), 1890, A., 1274; 1891, A., 444.
- Phenyloximidoacetoneitrile** (RUSSANOFF), 1892, A., 322.
- $\alpha$ -**Phenyloxyacrylic acid**. See Coumaric acid.
- $\beta$ -**Phenyloxyacrylic acid**. See Phenylglycidic acid.
- Phenylparabanic acid** (V. STOJENTIN), 1885, A., 1196.
- Phenylparaconic acid** and its salts (JAYNE), 1888, A., 472; (FITTIG and RÜDERS), 1890, A., 621. constitution of (ERDMANN), 1884, A., 906. nitration of (ERDMANN), 1886, A., 67. bromo- and isobromo- (FITTIG and LEONI), 1890, A., 895. chloro- (*o*-, *m*- and *p*-), disubstituted naphthalenes from (ERDMANN and KIRCHHOFF), 1889, A., 150. 2:4-, 2:5- and 3:4-dichloro-, and their derivatives (ERDMANN), 1889, A., 265; (SCHWECHTEN), 1890, A., 619; (ERDMANN and SCHWECHTEN), 1891, A., 450. nitro- (SALOMONSON), 1885, A., 1224; 1888, A., 480.
- Phenylparamide** (*mellitic acid, phenylimide of*) (HÖTTE), 1885, A., 1220.
- Phenylpentane**. See Amylbenzene.
- $\omega$ -**Phenylpentamethylene glycol** and bromide (KIPPING and PERKIN), 1890, T., 311, 313.
- Phenylpentamethylpyrazolone** (1- $\psi$ -cumyl-2:3-dimethylpyrazolone) (HALLER), 1885, A., 818.
- Phenylpentenoic acid**. See Hydrostyrylacrylic acid and Phenylmethylisocrotonic acid.
- $\mu$ -**Phenylpentoxazoline** (GABRIEL and ELFELDT), 1892, A., 212. *m*-nitro- (ELFELDT), 1892, A., 214.
- Phenylpentylene**. See Phenylamylene.
- Phenylisopentylene**. See *iso*Amylbenzene.
- Phenylphenacyl oxide**, *m*-nitro- (LELLMANN and DONNER), 1890, A., 523.
- 2'-Phenylphen-*p*-azoxine** (LELLMANN and DONNER), 1890, A., 524.
- Phenylphenotriazole**, *meso*- (KEHRMANN and MESSINGER), 1892, A., 889.
- Phenyl-*o*-phenylenediamine** (*amido-diphenylamine*) (SCHÖPFF), 1890, A., 1113.
- Phenyl-*p*-phenylenediamine** (IKUTA), 1888, A., 167; (HENCKE), 1890, A., 609.
- Phenyl-*o*-phenyleneguanidine** (KELLER), 1891, A., 1469.
- "Phenyl-*p*-phenylglycoluric acid"** (GUARESCHI), 1892, A., 828.
- Phenylphenylhydrazine**, 3-bromo-6-nitro- (WILLGERODT), 1888, A., 949. *allo-m*-chloro-*o*-nitro-, preparation of (WILLGERODT and ELLON), 1891, A., 1361.
- Phenyl-*ald*-phenylnaphthatriazine**. See Diphenyl- $\alpha\beta$ -naphthatriazine.
- Phenylphenylsemithiocarbazides**, *o*- and *p*-chloro- (HEWITT), 1891, T., 210, 212.
- Phenylphosphoric acid**. See Phenylic phosphate.
- Phenylphosphorous acid** (NOACK), 1883, A., 736.
- Phenylphosphoryl chloride** (NOACK), 1888, A., 735.
- Phenylphosphoryl di-, tetra- and thiochlorides** (ANSCHÜTZ and EMERY), 1890, A., 34, 35.
- 5-Phenylisophthalic acid** (DOEBNER), 1890, A., 1284; 1891, A., 1065.
- o*-Phenylphthalidicarboxylic acid**, isomeride of (JUILLARD), 1888, A., 955.
- Phenylphthalimide**, preparation of (HALLER), 1892, A., 1204.
- Phenylpiperazine**, *p*-nitro- (SCHMIDT and WICHMANN), 1892, A., 210.
- 1-Phenyl-3:6-*o*-piperazone** (MICHAELIS and HERMENS), 1892, A., 1494.
- 1-Phenylpiperidine** and its derivatives (LELLMANN), 1887, A., 604; (LELLMANN and GELLER), 1888, A., 1107. *o*-amido- (LELLMANN and JUST), 1891, A., 1245. *p*-amido-, formation of dyes from (LELLMANN and GELLER), 1888, A., 1108. *p*-bromo- (LELLMANN and JUST), 1891, A., 1244. nitro-derivatives of (LELLMANN), 1887, A., 604.
- $\gamma$ -**Phenylpiperidine** (BALLY), 1888, A., 65.
- Phenylpiperidylcarbamide** (GEBHARDT), 1885, A., 384; (WALLACH and LEHMANN), 1887, A., 385.
- Phenylpiperidylactic acid** (ERLENMEYER), 1889, A., 988.
- Phenylpiperidylthiocarbamide** (SKINNER and RUHEMANN), 1888, T., 558.
- $\alpha$ -**Phenylpropaldehyde** (V. MILLER and ROHDE), 1891, A., 898.
- $\beta$ -**Phenylpropaldehyde** (*hydrocinnamaldehyde*) (V. MILLER and ROHDE), 1890, A., 979.
- Phenylpropargyl oxide** (HENRY), 1883, A., 803.

- Phenylpropenylamidine** (MICHAEL and WING), 1885, A., 963.
- Phenylpropionic acid** (PERKIN and BELLENOT), 1886, T., 441.  
preparation of (PERKIN), 1884, T., 171.  
direct addition of hydrogen to (ARONSTEIN and HOLLEMAN), 1889, A., 878.  
formation of *allocinnamic acid* from (LIEBERMANN and SCHOLZ), 1892, A., 848.  
*dichloride* (NISSEN), 1892, A., 1464.  
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- $\alpha$ -Phenylpropionamide** (JANSSEN), 1889, A., 596.
- $\beta$ -Phenylpropionamide** (v. HOFMANN), 1886, A., 45; (HUGHES), 1891, P., 71.
- Phenylpropionic acid**, formation of a hydrocarbon,  $C_{18}H_{12}$ , from (KIPPING), 1892, P., 107.
- $\alpha$ -Phenylpropionic acid** (*hydratropic acid*) (OLIVERI), 1890, A., 375.  
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- $\beta$ -Phenylpropionic acid** (*hydrocinnamic acid*) and its derivatives (GABRIEL), 1883, A., 195; (GABRIEL and HERZBERG), 1883, A., 1123; (HERZBERG), 1885, A., 661.  
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- 3:4-diamido-** (GABRIEL), 1883, A., 195.
- m*-bromo-** (GABRIEL), 1883, A., 195.
- 3:4-bromamido-** (GABRIEL), 1883, A., 195.
- o*-, *m*- and *p*-chloro-** (HERZBERG), 1885, A., 661.
- p*-chloro-** (MIERSCH), 1892, A., 1222.
- $\alpha\beta$ -dichloro-** (ERLENMEYER), 1883, A., 196.
- chlorobromo-** (ERLENMEYER), 1883, A., 196.
- o*-, *m*- and *p*-iodo-** (HERZBERG), 1885, A., 661.
- 3:5-dinitro-4-amido-** (STOEHR), 1884, A., 1350.
- $\alpha$ -Phenylpropionic anhydride**, *o*-amido-. See Atroxindole.
- $\beta$ -Phenylpropionic anhydride**, *o*-amido-. See Hydrocarbostyiril.
- $\beta$ -Phenylpropionic** (*cinnamic*) **chloride** (HUGHES), 1891, P., 71.
- $\alpha$ -Phenylpropionitrile** (MEYER), 1889, A., 596.
- Phenylpropionylcarbamide** (KÜHN), 1885, A., 260.
- Phenylpropylacetamide**,  $\beta$ - and  $\gamma$ -bromo- (ELFELDT), 1892, A., 214.
- Phenylpropylacetic acid** (ROSSOLYMO), 1889, A., 861.
- Phenylisopropylacetylglcollic acid**. See Acetylcumylglcollic acid.
- Phenylpropylamine** and its derivatives (TAFEL), 1886, A., 940; 1889, A., 976; (GARELLI), 1892, A., 845.  
*di*- and *tri*-nitro- (VAN ROMBURGH), 1886, A., 455.
- Phenylisopropylamine** (EDELEANU), 1887, A., 583.
- Phenylisopropylbenzenyl-naphthylene-diamine** (FISCHER), 1892, A., 1473.
- Phenylpropylcarbinol** (MARSHALL and PERKIN), 1891, T., 886.
- Phenylpropylene**. See Allylbenzene.
- 1-Phenyl-4-isopropylene-3:5-pyrazolid-one** (MICHAELIS and BURMEISTER), 1892, A., 1005.
- Phenylpropylene- $\psi$ -semithiocarbazide** (AVENARIUS), 1891, A., 550.
- Phenylpropylene- $\psi$ -thiocarbamide** (PRAGER), 1890, A., 159.
- Phenylisopropylethylene glycol** (FOSSEK), 1884, A., 833.
- Phenylisopropylhydrazine** (PHILIPS), 1887, A., 1104.
- Phenylpropylic alcohol** (ERRERA), 1887, A., 35.
- Phenylisopropylic alcohol** (*benzylmethylcarbinol*) (ERRERA), 1887, A., 35.
- Phenylisopropylketone-*o*-carboxylic acid** (*benzoylisopropyl-*o*-carboxylic acid*) (ROSER), 1885, A., 268.
- Phenylpropylnitramine**, *trinitro*- (VAN ROMBURGH), 1886, A., 455.
- Phenylpropylthiocarbamine chloride** (BILLETTER and STROHL), 1888, A., 364.
- Phenyl-propyl- and -isopropyl-triazole-carboxylic acids** (BLADIN), 1892, A., 638.
- Phenylpropyl-**. See also Propylphenyl-.
- Phenylmetapyrazole** (PINNER and LIFSCHÜTZ), 1887, A., 1055.
- 1-Phenylpyrazole** (BALBIANO), 1887, A., 1054; 1889, A., 1215; (KNORR and LAUBMANN), 1889, A., 410.  
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- 4-bromo- and *di*- and *tri*-bromo-** (BALBIANO), 1890, A., 797.
- 2-Phenyl- $\beta$ -pyrazole**. See 2-Phenylglyoxaline.

- 1-Phenylpyrazole-4-carboxylic acid (KNORR and LAUBMANN), 1889, A., 410.
- 1-Phenylpyrazole-5-carboxylic acid (CLAISEN and ROOSEN), 1891, A., 1107.
- 1-Phenylpyrazole-3:5-dicarboxylic acid (BALBIANO), 1890, A., 1164; (CLAISEN and ROOSEN), 1891, A., 1107.
- 4-bromo- (BALBIANO), 1890, A., 1165.
- 1-Phenylpyrazole-3:4:5-tricarboxylic acid (KNORR and LAUBMANN), 1889, A., 410.
- 1-Phenylpyrazolidine (MICHAELIS and LAMPE), 1892, A., 355.
- 1-Phenyl-3:5-pyrazolidone (MICHAELIS and BURMEISTER), 1892, A., 1004.
- 4-oxime of (MICHAELIS and BURMEISTER), 1892, A., 1005.
- 1-Phenyl-3:5-pyrazolidone-4-azobenzene (MICHAELIS and BURMEISTER), 1892, A., 1005.
- 1-Phenylpyrazoline (FISCHER and KNOEVENAGEL), 1887, A., 932; (BALBIANO), 1889, A., 1215.
- Phenylmetapyrazolone ( *$\alpha$ -phenylthydantoin*) (PINNER), 1888, A., 1102.
- Phenylpyrazolone (*quinizine*) derivatives, constitution of (KNORR), 1884, A., 1377; 1887, A., 601.
- 1-Phenylpyrazolone (RUHEMANN and MORRELL), 1892, T., 799.
- 1-Phenylisopyrazolone and 4-bromo- (FISCHER and KNOEVENAGEL), 1887, A., 933.
- 1-Phenylpyrazolone-3-carboxylic acid (BUCHNER), 1890, A., 156.
- 1-Phenylpyrazolone-4-carboxylic acid (RUHEMANN and MORRELL), 1892, T., 797, 799.
- 1-Phenylpyrazolone-3-carboxylic acid, 4-amido- (TAFEL), 1887, A., 468.
- 2-Phenylpyridine (SKRAUP and COBENZL), 1883, A., 1015.
- 3-Phenylpyridine, and its diketone (SKRAUP and COBENZL), 1883, A., 1013.
- 4-Phenylpyridine, and its salts (HANTZSCH), 1884, A., 1194.
- 2-Phenylpyridine ketone, and its salts (SKRAUP and COBENZL), 1883, A., 1015.
- 3-Phenylpyridinecarboxylic acid and its salts (SKRAUP and COBENZL), 1883, A., 1012.
- Phenylpyridinedicarboxylic acids, 2- and 3-, and their salts (SKRAUP and COBENZL), 1883, A., 1014, 1011.
- 2-Phenylpyridinedicarboxylic acid, dibromo-, and its salts (SKRAUP and COBENZL), 1883, A., 1014.
- 2-Phenylpyridinephenyleneketonecarboxylic acid (DOEBNER and KUNTZE), 1889, A., 412.
- 3-Phenylpyridinesulphodicarboxylic acid (IMMERHEISER), 1889, A., 527.
- 4-Phenylpyridinetetracarboxylic acid, and its salts (HANTZSCH), 1884, A., 1193.
- 1-Phenyl-4-pyridone,  *$\alpha\beta$ -trichloro-* (ZINCKE), 1890, A., 965; (ZINCKE and FUCHS), 1892, A., 448.
- 1-Phenyl-4-pyridonecarboxylic acid,  *$\alpha\beta$ -trichloro-* (ZINCKE), 1890, A., 965; (ZINCKE and FUCHS), 1892, A., 448.
- Phenylpyrroldiazolecarboxylic acid, 1:3-, synthesis of (ANDREOCCI), 1892, A., 636.
- 1-Phenylpyrrolineazobenzene (FISCHER and HEPP), 1886, A., 1042.
- 1-Phenylpyrroline-2:5-dibenzoic acid (BAUMANN), 1887, A., 735.
- Phenylpyruvic acid (PLÖCHL), 1884, A., 604; 1887, A., 254; (ERLENMEYER), 1887, A., 142, 1046; (WISLICENUS), 1887, A., 587.
- synthesis of (ERLENMEYER), 1889, A., 990.
- Phenylquinaldine. See Phenyl-2'-methylquinoline.
- Phenylquinaldinic acid. See 4'-Phenylquinoline-2'-carboxylic acid.
- 2'-Phenylquinazoline (GABRIEL and JANSEN), 1890, A., 1442.
- $\alpha$ -Phenylquininic acid (DOEBNER), 1889, A., 411.
- Phenylquinoline, amido- [m.p. 136°-5] (JELLINEK), 1886, A., 1045.
- 1-Phenylquinoline and its derivatives (LA COSTE and SORGER), 1886, A., 80.
- 3-Phenylquinoline and its derivatives (LA COSTE and SORGER), 1886, A., 81.
- amido- (WEIDEL and v. GEORGIEVICS), 1888, A., 967.
- 2'-Phenylquinoline, preparation of (FRIEDLÄNDER and GÖHRING), 1883, A., 1148; (DOEBNER and v. MILLER), 1883, A., 1149.
- derivatives of (DOEBNER and v. MILLER), 1886, A., 721; (MURMANN), 1892, A., 1003.
- 2-amido- (v. MILLER and KINKELIN), 1885, A., 1144.
- 3'-Phenylquinoline, preparation of (FRIEDLÄNDER and GÖHRING), 1883, A., 1148.
- 4'-Phenylquinoline and its derivatives (GRIMAUZ), 1883, A., 663; (KOENIGS and NEF), 1886, A., 1045; 1887, A., 599.



- 3'-Phenylisoquinoline and 4'-amido-, and 1':4'-chloronitro- (GABRIEL), 1886, A., 265, 630.
- Phenylquinolineamine, and its salts (FRIEDLÄNDER and WEINBERG), 1885, A., 990.
- 2'-Phenylquinoline-4'-carboxylic acid ( *$\alpha$ -phenyleinchonic acid*) (DOEBNER), 1887, A., 504.  
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- 4'-Phenylquinoline-2'-carboxylic acid (*phenylquinaldine acid*) (KOENIGS and NEF), 1886, A., 1045.
- 3-Phenylquinoline-*mono*- and -*di*-carboxylic acids (CLAUS and NICOLAYSEN), 1886, A., 68.
- 2'-Phenylquinolinesulphonic acids (MURMANN), 1892, A., 1003.
- 3-Phenylquinoline-*p*- and - *$\beta$* -sulphonic acids and their salts (LA COSTE and SORGER), 1886, A., 82.
- Phenylquinonediiimide (HENCKE), 1890, A., 609.
- Phenylrosaniline, *dinitro*- (NÖLTING), 1883, A., 54.
- Phenylrosinduline (*rosinduline*) (FISCHER and HEPP), 1888, A., 1291; 1890, A., 909.  
amido- (FISCHER and HEPP), 1890, A., 765.
- Phenylrosindulinesulphonic acid (FISCHER and HEPP), 1891, A., 1045.
- Phenylsalicyluramidoxime (SPILKER), 1890, A., 144.
- Phenylsalicylic acid (GRAEBE), 1888, A., 477; (ARBENZ), 1890, A., 892.  
*tribromo*-, and *dinitro*- (ARBENZ), 1890, A., 893.
- Phenylsantoninmethane, *m*-nitro- (BERTONI), 1892, A., 622.
- $\alpha$ -Phenylselenazylamine (HOFFMANN), 1889, A., 726.
- Phenylseleniocarbamide (STOLTE), 1886, A., 781.
- Phenylseleniocarbimide (STOLTE), 1887, A., 43.
- Phenylsemicarbazide (EDELEANU), 1892, A., 1323.  
*o*-chloro- (HEWITT), 1891, T., 210.
- Phenylsemithiocarbazide (SKINNER and RUHEMANN), 1888, A., 274.
- Phenylsorbinosazone (FISCHER), 1887, A., 567.
- Phenylsuccenylamidine (COMSTOCK and WHEELER), 1892, A., 702.
- Phenylsuccinamic acid, *p*-bromo- (HOOGWERFF and VAN DORP), 1891, A., 196.
- Phenylsuccinamide, constitution of (HOOGWERFF and VAN DORP), 1891, A., 197.  
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*p*-bromo-, and bromamido- (HOOGWERFF and VAN DORP), 1891, A., 196.
- Phenylsuccinazone (CIAMICIAN and ZANETTI), 1890, A., 1120.
- Phenylsuccinimide (MOINE), 1887, A., 489.  
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- Phenylsulpharsenic acid, disodium salt of (SCHULTE), 1883, A., 187.
- Phenylsulphineacetic acid, non-existence of (OTTO and ENGELHARDT), 1887, A., 263.
- "Phenylsulphocyanamine,"  $\alpha$ -amido- (VILLE), 1887, A., 833.
- Phenylsulphonamic acid (TRAUBE), 1890, A., 1137.  
*di*bromo-, barium salt of (TRAUBE), 1891, A., 569.
- Phenylsulphone. See Diphenylsulphone.
- Phenylsulphoneacetates, properties of (MICHAEL and PALMER), 1885, A., 986.
- Phenylsulphoneacetoneamine (R. and W. OTTO), 1888, A., 282.
- Phenylsulphoneacetone (OTTO), 1886, A., 801; (OTTO and RÖSSING), 1890, A., 780.
- Phenylsulphoneacetonephenylmercaptole (R. and W. OTTO), 1888, A., 282; (OTTO and RÖSSING), 1891, A., 568.
- Phenylsulphoneacetoxime (R. and W. OTTO), 1888, A., 282.
- Phenylsulphone-*o*-amido- and -*o*-nitro-anilides and -*m*-amido- and -*m*-nitro-*p*-toluidides (LELLMANN), 1884, A., 51.
- Phenylsulphone- $\delta$ -amidovaleric acid (SCHOTTEN and SCHLÖMANN), 1892, A., 354.
- Phenylsulphone-*mono*- and -*di*-bromacetones (R. and W. OTTO), 1888, A., 282.
- Phenylsulphonedibromamide (HOOGWERFF and VAN DORP), 1888, A., 1194.
- $\alpha$ -Phenylsulphone- $\alpha$ -bromopropionic acid (OTTO), 1890, A., 381.
- $\alpha$ -Phenylsulphonebutyric acid (R. and W. OTTO), 1888, A., 577.
- $\beta$ -Phenylsulphone-crotonic and -*isocrotonic* acids (AUTENRIETH), 1891, A., 203.
- Phenylsulphone-ethyl alcohol, and its derivatives (OTTO and DAMKÖHLER), 1885, A., 262.

- Phenylsulphone-ethylic sulphate and chloride** (OTTO and DAMKÖHLER), 1885, A., 262, 263.
- Phenylsulphonehydroxypropionic acid, *p*-chloro-** (KÖNIG), 1892, A., 1091.
- Phenylsulphonephenylbenzenylamidine** (WALLACH), 1883, A., 48.
- Phenylsulphonephenylhydrazine** (ESCALES), 1885, A., 798.
- α*-Phenylsulphonepropionic acid** (OTTO), 1890, A., 381.  
preparation of the ethylic salts of (OTTO), 1885, A., 537.
- β*-Phenylsulphonepropionic acid** (OTTO), 1888, A., 360.
- Phenylsulphonepropionic acid, *p*-chloro-*α*-amido-** (KÖNIG), 1892, A., 1091.
- Phenylsulphonetetrahydroquinoline** (SCHOTTEN and SCHLÖMANN), 1892, A., 355.
- Phenyltaurine and its salts** (ANDREASCH), 1883, A., 664.  
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anilide, and its hydrochloride (LEYMANN), 1885, A., 786.
- Phenyltaurocyamine, formation of** (JAMES), 1885, T., 373.
- Phenyltetrahydro-*α*- and -*β*-naphtha-benzyl-carbamides and -thiocarb-amides** (BAMBERGER and HELWIG), 1889, A., 1198.
- 2'-Phenyltetrahydro-*α*-naphthaquinol-ine** (DOEBNER and KUNTZE), 1889, A., 412.
- Phenyl-*α*-tetrahydronaphthyl-carb-amide and -thiocarbamide** (BAMBERGER and ALTHAUSSE), 1888, A., 960.
- 1-Phenyl-*Δ*<sup>2</sup>-tetrahydropicoline** (LIPP), 1892, A., 1244.
- 3'-Phenyltetrahydroquinazoline** (PAAL and BUSCH), 1890, A., 73.  
2'-thio- (SÖDERBAUM and WIDMAN), 1889, A., 973; (BUSCH), 1892, A., 1495.
- 2'-Phenyltetrahydroquinoline and its nitroso-derivative** (DOEBNER and V. MILLER), 1886, A., 722.  
*m*-amido- and *m*-nitro- (V. MILLER and KINKELIN), 1885, A., 1145.
- Phenyltetra-*m*-hydroxydiphenyl-methane, *p*-nitro-** (SIBONI), 1892, A., 621.
- Phenyltetra-*p*-hydroxydiphenyl-methane, *o*-nitro-** (SIBONI), 1892, A., 621.
- Phenyltetra-*p*-hydroxydiphenyl-methanes, *m*- and *p*-nitro-** (BERTONI and ZENONI), 1892, A., 620.
- Phenyltetramethylenic dibromide and glycol** (MARSHALL and PERKIN), 1891, T., 890.
- Phenyltetramethylpyrazolone** (1-*ψ*-*cumylmethyloxyquinizine*) and its oxime (HALLER), 1885, A., 818.
- Phenyltetrazenylamidoxime** (BLADIN), 1889, A., 979.
- Phenyltetrazolecarboxylic acid, amido- and nitro-** (BLADIN), 1892, A., 1009.
- Phenyltetrazolecarboxylthiamide** (BLADIN), 1892, A., 638.
- Phenyltetric acid** (MOSCHELES and CORNELIUS), 1888, A., 1272.
- Phenyltetrose** (FISCHER and STEWART), 1892, A., 1447.
- m*-Phenylthiamidobenzoic acid** (ASCHAN), 1884, A., 907.
- α*-Phenylthiazole** (ARAPIDES), 1889, A., 414; (POPP), 1889, A., 725.
- μ*-Phenylthiazole** (HUBACHER), 1891, A., 221.
- Phenylthiazoline** (HANTZSCH and TRAUMANN), 1888, A., 573; (GABRIEL and HEYMANN), 1890, A., 524.
- Phenylthiazylamine** (TRAUMANN), 1889, A., 415.
- Phenylthienylmethane** (PETER), 1884, A., 1001.
- α*-Phenyl*Δ*thiobiuret** (HECHT), 1892, A., 704; (FROMM), 1892, A., 844.
- Phenyl*Δ*thiocarbamic thioanhydride** (LOSANITSCH), 1892, A., 55.
- Phenylthiocarbamide** (BERTRAM), 1890, A., 1291; 1892, A., 465.  
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- Phenylthiocarbamide allylic, benzylic, ethylic, methylic and propylic cyanides** (HECHT), 1890, A., 1104.
- Phenylthiocarbamineisobutylamide** (HECHT), 1892, A., 703.
- Phenylthiocarbimide, preparation of** (WERNER), 1891, T., 398.  
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- Phenylthiocarbimide**, action of benzaldehyde and of benzoic acid on (COHEN), 1891, T., 67.  
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*m*-nitro-, and its derivatives (STEUEMANN), 1883, A., 801; 1884, A., 306.
- Phenylthiocarbimide-aldehyde-ammonia**, and action of silver nitrate on (DIXON), 1892, T., 518, 521.
- α*-Phenyl-dithiodimethylketuret** (FROMM), 1892, A., 844.
- Phenylthio-hydantoic acid and -hydantoin** (ASCHAN), 1884, A., 907.
- Phenylthiophen** and its derivatives (RENARD), 1890, A., 184.
- α*-Phenylthiophen**, synthesis of (KUES and PAAL), 1887, A., 238.
- Phenylthiophen-di- and -tetra-sulphonic acids** (RENARD), 1890, A., 134.
- Phenylthiosalicylic acid**. See *o*-Phenoxybenzoic acid.
- o*-Phenylthio-uramidocinnamic acid** (ROTHSCHILD), 1890, A., 1123; 1891, A., 198.
- Phenylthiouramido-*p*-tolylurethane** (*thiocarbanilotolyleneurethane*) (SCHIFF and VANNI), 1890, A., 1125; 1892, A., 600.
- Phenylthiourethane** (SCHIFF and VANNI), 1892, A., 600.  
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- Phenyltoluene**. See Methyl-diphenyl.
- Phenyl-*m*-toluidine**, trinitro-. See *tri*-Nitrani-lidotoluene.
- Phenyl-*p*-toluidine** and its derivatives (BUCH), 1885, A., 147; (BONNA), 1887, A., 927; (REICHOLD), 1890, A., 609.  
*o*-amido- (HEIDENSLEBEN), 1891, A., 307.  
*p*-amido- (REICHOLD), 1890, A., 610.  
*di*amido- and *dinitramido*- (ERNST), 1891, A., 300.  
*o*-nitro- (SCHÖPFF), 1890, A., 1113.  
*p*-nitroso- (REICHOLD), 1890, A., 609.
- p*-Phenyltolylacetonitrile** (NEURE), 1889, A., 597; (MICHAEL and JEAN-PRÉTRE), 1892, A., 1094.
- Phenyltolylbenzylacetonitrile** (NEURE), 1889, A., 597.
- Phenyl-*p*-tolylbenzylbiuret** (KÜHN and HENSCHEL), 1888, A., 474.
- Phenyl-*p*-tolylbenzylcarbamide** (HAMMERICH), 1892, A., 1083.
- Phenyl-*m*-tolylcarbamide** (v. BUCHKA and SCHACHTEBECK), 1889, A., 702.
- Phenyl-*o*-, -*m*-, and -*p*-tolylcarbiny-lamines** (GOLDSCHMIDT and STÖCKER), 1890, A., 1480, 1479.
- Phenyl-*m*-tolylcarbiny-lcarbamide** (*homobenzhydrylcarbamide*) (GOLDSCHMIDT and STÖCKER), 1891, A., 1480.
- Phenyl-*p*-tolylcarbiny-l-phenylcarbamide and -thiocarbamide** (GOLDSCHMIDT and STÖCKER), 1891, A., 1480.
- Phenyl-*o*-tolyl-diketodihydropyrazine** (ABENIUS), 1890, A., 270.
- Phenyl-*o*-tolyl-diketopyrazine**, *dichloro*- (ABENIUS), 1890, A., 526.
- Phenyl-*o*- and -*p*-tolyl-*αγ*-diketopiperazines** (BISCHOFF and HAUSDÖRFER), 1890, A., 1285, 1286.
- Phenyl-*p*-tolylethylene**. See *p*-Methylstilbene.
- Phenyl-*p*-tolylethylthiocarbamide** (GEBHARDT), 1884, A., 1321.
- Phenyl-*m*-tolylmethane and *dinitro*-** (SENF), 1884, A., 427.
- Phenyltolylmethanes, diamido-** (ULLMANN), 1888, A., 288.
- 5-Phenyl-1-*o*- and -*p*-tolyl-2-methylpyrrolines** and their 3-carboxylic acids (LEDERER and PAAL), 1886, A., 75.
- Phenyl-*o*-tolylmethylthiocarbamide**, action of aniline on (GEBHARDT), 1885, A., 383.
- Phenyl-*p*-tolylmethylthiocarbamide** (GEBHARDT), 1884, A., 1321; 1885, A., 383.
- Phenyltolylpropane** (KRAEMER and SPILKER), 1891, A., 207.
- αβ*-Phenyl-*o*-, -*m*- and -*p*-tolylpropanes** (KRAEMER, SPILKER and EBERHARDT), 1891, A., 207.
- Phenyl-*o*-tolylsemithiocarbazides** [m.p. 163° and 146°] (DIXON), 1890, T., 258, 259.
- Phenyl-*p*-tolylsemithiocarbazides** [m.p. 173° and 172°] (DIXON), 1892, T., 1013.
- Phenyl-*p*-tolylsulphone** (OTTO), 1885, A., 536.
- Phenyl-*p*-tolylthiocarbamide**, *o*- and *m*-nitro- (STEUEMANN), 1884, A., 307.



- Phenyltriazolecarboxylic acid** (BLADIN), 1890, A., 1166.  
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 amido- and nitro- (BLADIN), 1892, A., 735.
- Phenyltriazoledicarboxylic acid** and its salts (BLADIN), 1890, A., 1165; 1891, A., 472.
- n*-Phenyltrihydrothiazole** (FOERSTER), 1888, A., 946.
- Phenyltrimethylammonium chloride** and hydroxide, action of heat on (COLLIE and SCHRYVER), 1890, T., 777.  
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- Gal-Phenyltrimethylene-2:3-dicarboxylic acid** (BUCHNER), 1888, A., 1275; (BUCHNER and DESSAUER), 1892, A., 849.
- Gal-Phenyltrimethylene-2:2:3-tricarboxylic acid** (BUCHNER and DESSAUER), 1892, A., 849.
- Phenyltrimethylenimine** (BALBIANO), 1889, A., 252.
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tetrabromo-1:3-dinitro- (KEPPLER and MEYER), 1892, A., 1062.

tri- and tetra-chloro- (SPRING and WINSSINGER), 1883, A., 659.

1:2:3-trichloro-. See Trichlorhydrin.

s-hexachloro- (LEVY and CURCHOD), 1889, A., 1136.

1-nitro-, magnetic rotatory power of (FERKIN), 1889, T., 688, 727.

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1:3-dinitro-, and its sodium derivative (KEPPLER and MEYER), 1892, A., 1061, 1415.

2:2-dinitro- (BREDT), 1883, A., 176.

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1:2-Propanedisulphonic acid and its salts (MONARI), 1885, A., 970.

1:3-Propanedisulphonic acid (trimethylenedisulphonic acid) and its salts (MONARI), 1885, A., 970.

**Propanesulphonic acid** (propylsulphonic acid) (WINSSINGER), 1888, A., 243.

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$\gamma$ -amido- (LAUER), 1890, A., 1090.

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$\beta$ -Propanesulphonic acid, potassium salt of (STUFFER), 1891, A., 180.

**Propanetetra-carboxylic acid** (EMERY), 1891, A., 424.



- Propanetetra-carboxylic acid** (*isoallyl-enetetra-carboxylic acid*) and its salts (BISCHOFF), 1883, A., 46.  
(*dicarboxyglutaric acid*; *methylenedimaleonic acid*) (PERKIN), 1886, A., 691; (KLEBER), 1888, A., 1057.
- Propanetricarboxylic acid** (*propenyl-tricarboxylic acid*) and its ethereal salts (BISCHOFF), 1883, A., 45.  
(*carboxyglutaric acid*) (EMERY), 1891, A., 547.  
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- Propargylamine** and its derivatives (PAAL and HERMANN), 1890, A., 229; (PAAL and HEUPEL), 1892, A., 30.
- "Propargylenetetra-carboxylic acid"** and its ethylic salt, synthesis of (SCHACHERL), 1885, A., 1125.
- Propargylic acid.** See Propiolic acid.
- Propargylic iodide**, and *triiodide* (HENRY), 1884, A., 979.
- "Propargylphenol"** (HENRY), 1883, A., 803.
- Propargyl-phenylcarbamide** and *-di-thiocarbamic acid* (PAAL and HEUPEL), 1892, A., 30.
- Propenylamidine** (*propionamidine*) hydrochloride (PINNER), 1883, A., 1090; 1884, A., 723.  
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platinochloride (PINNER), 1884, A., 723.
- Propenylamidoxime** (NORDMANN), 1885, A., 240.
- Propenylbenzene.** See Allylbenzene.
- p*-Propenylbenzoic acid** and its salts (WIDMAN), 1883, A., 330.  
2-amido- (WIDMAN), 1886, A., 466.  
3-amido-, and its derivatives (WIDMAN), 1884, A., 317.  
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2:5-dibromo- (FILETI and BONISCONTRO), 1892, A., 605.  
*m*-nitro-, salts of (WIDMAN), 1884, A., 317.
- iso*Propenylcarbinol.** See  $\beta$ -Allylcarbinol.
- Propenyldimethylapionol** (BARTOLOTTI), 1892, A., 1315.
- Propenyldiphenyldicarbamide** (PINNER), 1891, A., 60.
- Propenylglycollic acid** (LOBRY DE BRUYN), 1885, A., 242.
- Propenylquinoline**, *aw*-trichloro- (EINHORN and LEHNKERING), 1888, A., 1208.
- p*-Propenylsalicylic acid** (*hydroxypropenylbenzoic acid*) (HEYMANN and KOENIGS), 1887, A., 241.
- Propeptone.** See under Peptone.
- Propimine**, thiocyno- (*mesoamido-methylthiazole*) (HANTZSCH and WEBER), 1888, A., 257; (TRAUMANN), 1889, A., 414.  
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- "Propimine thiocyanate,"** and its derivatives (TCHERNIAC and NORTON), 1884, A., 664.  
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- Propinediphtalyl.** See Diphtalylpropane.
- Propiolic acid** (*propargylic acid*) (v. BANDROWSKI), 1883, A., 314.  
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*diiodide* (HOMOLKA and STOLZ), 1885, A., 1198; (BRUCK), 1892, A., 431.  
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iodo- and its salts (HOMOLKA and STOLZ), 1885, A., 1198; (v. BAeyer), 1885, A., 1199; (STOLZ), 1886, A., 530.
- Propiolic acids**, substituted (MABERY and SMITH), 1890, A., 27.
- o*-Propiolophenoxyacetic acid** (RÖSSING), 1886, A., 66.
- Propionamide** (MEYER), 1889, A., 381.  
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3-iodo- (HENRY), 1885, A., 372.  
 $\alpha$ -*diiodo*- (CURTIUS and LANG), 1892, A., 452.  
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- Propion-*o*-amidobenzoic acid** (PICTET and DUPARC), 1888, A., 370.
- Propionanilide**,  $\alpha$ -nitro- (SMITH), 1885, A., 524.
- Propionates**, acid (MIXTER), 1887, A., 231.  
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- Propione.** See Diethyl ketone.
- Propionic acid** and its derivatives (LOBRY DE BRUYN), 1885, A., 963; (RENARD), 1886, A., 1007.  
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**Propionic acid**, electrolysis of (BUNGE), 1890, A., 1236.  
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 $\alpha$ -bromo- (VOLHARD), 1888, A., 129.  
 electrolysis of (COHN), 1889, A., 1056.  
 $\beta$ -bromo- (LEDERER), 1891, A., 37.  
 $\alpha\beta$ -dibromo-, action of, on ethylic malonate (CONRAD and GUTHZEIT), 1884, A., 991.  
 tribromo- (NIEMIOWICZ), 1890, A., 861.  
 tetrabromo-, and its salts (MABERY and ROBINSON), 1884, A., 664.  
 $\beta\beta$ -dichloro-, and its derivatives (FROMME and OTTO), 1887, A., 912.  
 tetrachloro- (MABERY and SMITH), 1890, A., 27.  
 chlorotribromo-, decomposition of, by alkaline hydroxides (MABERY), 1884, A., 663.  
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 $\alpha\beta$ -dichloro- $\beta\beta$ -dibromo- (MABERY and NICHOLSON), 1885, A., 507.  
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 $\beta$ -iodo-, preparation of (MEYER), 1887, A., 232; 1888, A., 360.  
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 $\beta$ -nitroso- (V. PECHMANN), 1891, A., 1458; (HANTZSCH), 1892, A., 1069.  
 $\beta$ -sulpho- (CIAMICIAN and MAGNAGHI), 1886, A., 226; (ROSENTHAL), 1886, A., 866.

**Propionic acids**, substituted (MABERY and ROBINSON), 1884, A., 663; (MABERY), 1887, A., 570.  
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**Propionitrile** (*ethylic cyanide*), magnetic rotatory power of (PERKIN), 1889, T., 701.  
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 $\alpha$ -dichloro- (OTTO and VOIGT), 1887, A., 1024.  
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**Propiono-diphenyl- and -di-o- and -p-tolyl-hydrazides** (GATTERMANN, JOHNSON and HÖLZLE), 1892, A., 843.  
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**Propionophenylcarbin** (FREUND and GOLDSMITH), 1888, A., 1187.  
**Propionophenylhydrazide** (FREUND and GOLDSMITH), 1888, A., 1187; (OTTO and HOLST), 1890, A., 1328.  
**Propiono-o-toluidide** (PICTET and DUPARC), 1888, A., 370.  
**Propiono-o- and -p-tolylhydrazides** (GATTERMANN, JOHNSON and HÖLZLE), 1892, A., 843.

- Propionylacetophenone** (*phenyl ethyl methyl ketone*) (BEYER and CLAISEN), 1887, A., 943.
- Propionylacetylphenylhydrazine** (JAPP and KLINGEMANN), 1888, T., 540.
- $\alpha$ -Propionylacrylic acid** (HANTZSCH and WOHLBRÜCK), 1887, A., 717.
- p*-Propionylanisoil** (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 963.
- Propionylbenzoic acid**, *o*-pentachloro- (ZINCKE and COOKSEY), 1890, A., 785.
- Propionylbenzoyl** (MÜLLER and v. PECHMANN), 1889, A., 1171.
- Propionyl-*d*-bromonitrophenol** and **-chloro-*d*-bromonitrophenol** (GARZINO), 1890, A., 1107.
- Propionylcodeine**, and its derivatives (HESSE), 1884, A., 614.
- Propionyl-*m*-diethoxybenzene** (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.
- $\alpha$ -Propionylethyl cyanide**. See Methylpropionylacetoneitrile.
- 1:3:4-Propionylhomofuric acid** (TIE-MANN and KRAAZ), 1883, A., 200.
- Propionylhydroxamic acid** (MIOLATI), 1892, A., 699.
- Propionylmesitylene**, action of hydroxylamine hydrochloride on (FEITH and DAVIES), 1892, A., 314.
- Propionyl- $\alpha$ -naphthol** and **- $\alpha$ -naphtholazobenzene** (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionyl-naphtholphenylhydrazine** (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionyl- $\alpha$ -naphthyl methyl oxide** (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.
- Propionyl-*d*-nitrophenol** (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionyl-*o*-picnic acid** (LIEBERMANN and KLEEMANN), 1887, A., 47.
- p*-Propionylphenetol** (GATTERMANN, EHRHARDT and MAISCH), 1890, A., 964.
- p*-Propionylphenol** (*hydroxyphenyl ethyl ketone*) (PERKIN), 1889, T., 547; (GOLDZWEIG and KAISER), 1891, A., 447.
- derivatives (GUARESCHI and DAC-COMO), 1885, A., 891.
- phenylhydrazine of (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionylpropaldehyde** (CLAISEN and MEYEROWITZ), 1890, A., 357.
- $\alpha$ -Propionylpropionamide** (OTTO and TRÖGER), 1889, A., 957.
- $\beta$ -Propionylpropionic acid** (*homolevulinic acid*) and its dioximes (ZANETTI), 1892, A., 351; (FITTIG and HILLERT), 1892, A., 961.
- Propionylpropionitrile** (v. MEYER), 1889, A., 114; (BOUVEAULT), 1891, A., 51.
- 1-Propionylpyrroline** (DENNSTEDT and ZIMMERMANN), 1887, A., 844.
- Propionylquinol** and its hydrazine (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionylresorcinol** and its hydrazine (GOLDZWEIG and KAISER), 1891, A., 447.
- Propionylsodacetaldehyde** (CLAISEN and STYLOS), 1888, A., 671.
- Propiophenone** (*phenyl ethyl ketone*) and its derivatives (PAMPEL and SCHMIDT), 1887, A., 252.
- amido-, hydrochloride (SCHMIDT), 1890, A., 372.
- nitroso- (v. PECHMANN and MÜLLER), 1888, A., 1088; (CLAISEN and MANASSE), 1889, A., 585; (GUDE-MAN), 1889, A., 613.
- Propiophenone-*o*-carboxylamide** (GABRIEL), 1886, A., 620.
- Propiophenone-*o*-carboxylic acid**, *pentachloro-* (ZINCKE and COOKSEY), 1890, A., 785.
- Propiothienone** and its derivatives (KRECKELER), 1886, A., 539.
- Propoxybenzamide** (FILETI and AB-BOA), 1892, A., 595.
- Propoxybenzene** (*phenyl propyl ether*), heat equivalent of (STOHMANN, RODATZ and HERZBERG), 1887, A., 428.
- $\gamma$ -bromo- (LOHMANN), 1891, A., 1467.
- $\gamma$ -chloro- (GABRIEL), 1892, A., 717.
- p*-Propoxybenzoic acid** (REMSEN and GRAHAM), 1889, A., 975.
- Propoxybenzonitrile** (FILETI and AB-BOA), 1892, A., 595.
- Propoxybromosalicylic acid** (PEBA-TONER), 1887, A., 487.
- 4-Propoxy- $\beta$ -naphthaquinone**, 3-chloro- (ZINCKE), 1888, A., 710.
- Propoxypropylanthracene** (HALLGAR-TEN), 1889, A., 895.
- Propyl**, change of, into isopropyl in the cumenes (WIDMAN), 1891, A., 45.
- compounds, specific volumes of (ZANDER), 1883, A., 13.
- Propyl hexyl ketone** (WAGNER), 1892, A., 35.
- Propyl- and isopropyl-acetanilide** (PIC-TET), 1890, A., 758.
- isoPropylacetic acid**. See *iso*Valeric acid.
- isoPropylacetone**, oxime of (WESTEN-BERGER), 1884, A., 581.
- isoPropylacetonylphosphinic acid**, and its salts (MICHAELIS), 1884, A., 901; 1885, A., 747.



**Propylacetothienone.** See Propylthienyl methyl ketone.

*iso*Propylacetylene. See Pentinene.

**Propyl- and isopropyl-acetylenecarboxylic acids** (FAWORSKY), 1888, A., 1169.

**Propylacridine** (VOLPI), 1892, A., 343.

**Propylaldoxime** (PETRACZEK), 1883, A., 569.

**Propylallylamine and its platinochloride** (LIEBERMANN and PAAL), 1883, A., 909.

**Propylallylthiocarbamide** (HECHT), 1890, A., 476; (AVENARIUS), 1891, A., 549.

**Propylamidoacetic acid** (CHANCEL), 1892, A., 804.

**Propylamine** (VINCENT), 1886, A., 1004. preparation of (MALBOT), 1887, A., 652.

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$\beta$ -bromo-, derivatives of (HIRSCH), 1890, A., 859.

$\gamma$ -bromo-, derivatives of (GABRIEL and WEINER), 1888, A., 1293.

hydrobromide (LAUER), 1890, A., 1090.

2:3-dibromo-, hydrobromide (PAAL and HERMANN), 1890, A., 228.

tribromo- (PAAL), 1889, A., 117.

hydrobromide (PAAL and HERMANN), 1890, A., 229.

thio-derivatives of (COBLENTZ), 1891, A., 1216.

**Propylamines and their derivatives** (CHANCEL), 1892, A., 804.

*iso*Propylamine,  $\alpha\beta$ -dithiocyano-, and its derivatives (TCHERNIAC and NORTON), 1884, A., 664.

*iso*Propylamines (H. and A. MALBOT), 1891, A., 166.

**Propylaminenitrobenzamide**,  $\gamma$ -bromo- (ELFELDT), 1892, A., 214.

**Propylammonium propyldithiocarbamate** (HECHT), 1890, A., 476.

**Propylisoamylamine**, dibromo-, and its hydrobromide (PAAL), 1889, A., 118.

**Propylisoamylglyoxalines**, *n*- and *iso*- (oxalisoamyl-*n*- and *iso*-butylines) (RIEGER), 1889, A., 119.

*p*-*iso*Propyl-*o*-*iso*amyltoluene (CLAUS), 1892, A., 985.

**Propylaniline** (DOEBNER and V. MILLER), 1884, A., 1376; (PICTET), 1890, A., 758.

*p*-nitroso- (WACKER), 1888, A., 466.

*iso*Propylaniline (PICTET and CRÉPIEUX), 1888, A., 689; (PICTET), 1890, A., 758.

**Propylanilinenitrosamine**, *p*-nitroso- (WACKER), 1888, A., 466.

**Propylazauric acid** (MEYER and CONSTAM), 1883, A., 41.

**Propylbenzamide** (FILETI), 1887, A., 43.

$\beta$ -bromo- (HIRSCH), 1890, A., 860.

$\gamma$ -bromo- (GABRIEL and ELFELDT), 1892, A., 212.

$\beta$ -chloro- (GABRIEL and HEYMANN), 1890, A., 1268.

$\gamma$ -chloro- (GABRIEL and ELFELDT), 1892, A., 213.

**Propylbenzene.** See *n*-Cumene.

*iso*Propylbenzene. See Cumene.

**Propylbenzoic acid.** See *n*-Cuminic acid.

*iso*Propylbenzoic acid. See *iso*Cuminic acid.

**Propylbenzonitrile.** See Propyldiphenylic cyanide.

*p*-Propylbenzophenone and its oximes (SMITH), 1892, A., 488.

*p*-Propylbenzophenone and its oximes (SMITH), 1892, A., 489.

**Propylbenzoylethyl cyanide** (*propylbenzoylpropionitrile*), imido- (BURNS), 1891, A., 889.

*iso*Propylbenzoylformic acid (*isopropylphenylglyoxylic acid*) (FILETI and AMORETTI), 1891, A., 1060.

**Propylbenzylamine** (ZAUNSCHIRM), 1888, A., 1077.

*iso*Propylbenzylamine. See Cuminyllamine.

**Propylisobutanetricarboxylic acid** (BISCHOFF and TIGERSTEDT), 1890, A., 1103.

**Propylbutylamine**, dibromo- (PAAL), 1889, A., 117.

**Propylisobutylamine** (PAAL and HEUPEL), 1892, A., 32.

dibromo- (PAAL), 1889, A., 117.

*iso*Propylisobutylethylene glycol (FOSSEK), 1884, A., 833; (SWOBODA and FOSSEK), 1891, A., 31.

**Propyl-*n*- and -*iso*-butylglyoxalines** (oxal-*n*- and -*iso*-butylbutylines) (RIEGER), 1889, A., 119.

**Propylisobutylglyoxaline** (oxalpropylisobutylglyoxaline) (RADZISZEWSKI), 1884, A., 936.

$\alpha$ -*iso*Propyl- $\beta$ -*iso*butylhydracrylic acid (WOHLBRÜCK), 1887, A., 1100.

- Propylisobutylquinol** (FIALA), 1886, A., 454.
- 3'-Propyl-2'-butylquinoline**, and its salts (DOEBNER and V. MILLER), 1884, A., 1376.
- 3'-isoPropyl-2'-isobutylquinoline** (SPADY), 1886, A., 263.  
reactions occurring in the synthesis of (V. MILLER), 1891, A., 1102.
- p-isoPropyl-n- and -iso-o-butyltoluenes** (CLAUS), 1892, A., 985.
- Propylcarbamide** (CHANCEL), 1892, A., 1421.  
2:3-dibromo-, and its derivatives (ANDREASCH), 1884, A., 732; (PAAL and HEUPEL), 1892, A., 30; (PAAL), 1892, A., 578.
- $\alpha$ -Propyl- $\beta$ -chlorocinnamic acid** (PERKIN and CALMAN), 1886, T., 163.
- $\alpha$ -isoPropylcinchoninic acid** (DOEBNER), 1887, A., 504.
- isoPropylcinnamaldehyde**. See  $\alpha$ -Cumylacraldehyde.
- isoPropylcinnamic acid**. See Cumylacrylic acid.
- Propylcinnamoylamides**,  $\beta$ - and  $\gamma$ -bromo- (ELFELDT), 1892, A., 215.
- $\alpha$ -isoPropylcoumarin**, derivatives of (ALDRINGEN), 1892, A., 330.  
thio- (ALDRINGEN), 1890, A., 624.
- $\alpha$ -isoPropyl-coumaroxime and -coumarphenylhydrazide** (ALDRINGEN), 1890, A., 624.
- isoPropyl-m-cresol** and its derivatives (MAZZARA), 1883, A., 463.
- Propylcyanocamphor** (HALLER), 1891, A., 1499.
- Propyl- and isopropyl-deoxybenzoin** (BISCHOFF), 1889, A., 512.
- Propyldiallylcarbinol**. See Decinylic alcohol.
- 3'-isoPropyldihydroindole** (TRENKLER), 1889, A., 260.
- Propyldiphenylic tricyanide** (KRAFFT and V. HANSEN), 1889, A., 697.
- Propylene**, formation of, from glycerol (CLAUS), 1886, A., 136.  
liquefaction of (MOLTSCHANOWSKI), 1889, A., 1126.  
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- Propylene**, 1-amido- (HIRSCH), 1890, A., 860.  
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1-bromo-. See Allylic bromide.  
3-bromo- and *iso*-3-bromo- (WISLICIENUS, TEISLER and LANGBEIN), 1889, A., 236.  
1:3-dibromo- (LESPIEAU), 1892, A., 420.
- Propylene**, bromonitro- (ASKENASY and MEYER), 1892, A., 1064.  
 $\alpha$ -chloro- and *iso*- $\alpha$ -chloro- (WISLICIENUS), 1887, A., 656; (WISLICIENUS, TEISLER and LANGBEIN), 1889, A., 236.  
 $\alpha$ - and  $\beta$ -dichloro-, action of triethylamine on (REBOUL), 1883, A., 307.  
1:2:3-triiodo- (HENRY), 1884, A., 979.  
pentachloro- (LEVY and CURCHOD), 1889, A., 1136.  
nitro- (MEYER), 1892, A., 575; (ASKENASY and MEYER), 1892, A., 1062.  
sodium derivative of (ASKENASY and MEYER), 1892, A., 1062.
- Propylene chlorhydrin**, constitution and oxidation of (MORLEY and GREEN), 1885, T., 132; P., 3.  
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- Propylene ethylphenylketate**, preparation and oxidation of (MORLEY and GREEN), 1885, T., 135.  
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- 1:2-Propylene glycol** (*trimethyl glycol*), formation of, from acetylcarbinol (PERKIN), 1891, T., 796.  
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diacetin of (BÉHAL and DESGREZ), 1892, A., 1163.
- 1:3-Propylene glycol** (*trimethylene glycol*) (NIEDERIST), 1883, A., 450.  
acetals of (LOCHERT), 1888, A., 935.
- Propylene mercaptan** (HAGELBERG), 1890, A., 950.
- Propylene oxide**, heat of combustion of (BRÜHL), 1891, A., 633.  
oxidation of, by silver oxide (LINNEMANN), 1885, A., 1044.  
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- Propyleneacetal** (DE GRAMONT), 1884, A., 35.
- Propyleneallyl- $\psi$ -thiocarbamide** (HIRSCH), 1890, A., 861.
- Propyleneazo-**. See Azo-.
- 4-isoPropylenebis-1- and -3-phenylmethylpyrazolone** (KNORR), 1887, A., 602.
- Propylenecarbamide** (GABRIEL), 1890, A., 128.  
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- Propylene- $\psi$ -carbamide** (HIRSCH), 1890, A., 859.
- Propylenediamine**, derivatives of (STRACHE), 1888, A., 1172.
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- Propylenediphenyldisulphone** (STUFFER), 1890, A., 988; 1891, A., 181.
- Propylenedisulphonic acid**. See 1:2-Propanedisulphonic acid.
- Propylene-ethenyldiamine** (*ethenyl-propylenediamine*) (v. HOFMANN), 1888, A., 1051.
- Propyleneglycolcarboxylic acid**. See  $\alpha\beta$ -Dihydroxybutyric acid.
- Propylene-oxamic acid and -oxamide** (STRACHE), 1888, A., 1173.
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- Propylene- $\psi$ -selenocarbamide hydrobromide** (FITTIG and DUBOIS), 1890, A., 880.
- Propylenesuccinimide** (STRACHE), 1888, A., 1173.
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- Propylethyl-**. See Ethylpropyl-.
- iso*Propylethylene**. See  *$\alpha$ -iso*Amylene.
- Propylethyl cyanide**, oxime of. See Methyl ethylisooxazole, amido-.
- $\alpha$ -imido- (*imidohexonitrile*) (v. MEYER), 1889, A., 114.
- iso*Propylformamide** (SPICA), 1887, A., 1028.
- Propylformanilide** (PICTET and CRÉPIEU), 1888, A., 689; (PICTET), 1890, A., 758.
- Propylisofromanilide** (COMSTOCK and CLAPP), 1892, A., 708.
- iso*Propylformanilide** (PICTET and CRÉPIEU), 1888, A., 689; (PICTET), 1890, A., 758.
- Propylformimide hydrochloride** (PINNER), 1883, A., 1089.
- iso*Propylformonaphthylamide** (SPICA), 1887, A., 1028.
- Propylglyoxaline** (*glyoxalbutyline*) (RIEGER), 1889, A., 119.
- p*-Propylglyoxaline** (WALLACH), 1883, A., 911.
- iso*Propylglyoxaline** (*glyoxal isobutyline*) (RADZISZEWSKI), 1883, A., 1086; (RIEGER), 1889, A., 120.
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*iso***Propylidene-*p*-amidophenol** (HAEGELE), 1892, A., 1451.

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*iso***Propyldenediphenol** (DIANIN), 1889, A., 1187.

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*iso***Propylitamalic acid, salts of** (FITTIG and ZANNER), 1890, A., 590.

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**Propyllutidinedicarboxylic acid** (2:6-dimethyl-4-propylpyridinedicarboxylic acid) (JAECKLE), 1888, A., 1104.

*iso***Propylmalic acid** (SCHLEICHER), 1892, A., 428.

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*iso***Propylnitrophenyllactamide** (EINHORN and HESS), 1884, A., 1353.

*iso***Propylnitrophenyllactic acid,  $\beta$ -lactone of** (EINHORN and HESS), 1884, A., 1351.

*p*-***iso*Propyl-*o*-nitrophenyllactic acid** and its salts (EINHORN and HESS), 1884, A., 1353.

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*p*-**Propylphenylcarbamide** (FRANCKSEN), 1884, A., 1008.

*p*-**Propylphenyldimethylamine** (CLAUS and HOWITZ), 1884, A., 1006.

*iso***Propylphenylformamide** (DE VARDA), 1887, A., 1028.

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*p*-**Propylphenylthiocarbamides** [m.p. 159° and 63°] (FRANCKSEN), 1884, A., 1008; (HECHT), 1890, A., 477.

*p*-**Propylphenylthiocarbimide** (FRANCKSEN), 1884, A., 1008.

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*iso***Propylphosphinecarboxylic acid** (MICHAELIS), 1885, A., 748.

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*iso***Propylisophthalic acid** (DOEBNER), 1890, A., 1283; 1891, A., 1064.

*iso***Propylphthalide** (ROSER), 1885, A., 268.

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 $o$ -Propyl- $p$ -*iso*propyltoluene (CLAUS), 1892, A., 985.  
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*iso*Propyltartaric acid (*hydroxyisohexic acid*) (GORBOFF), 1888, A., 1179.  
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*iso*Propylthienyl methyl ketone (THIELE), 1892, A., 442.  
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- alkylammonium hydroxides, oxidation of (DECKER), 1891, A., 736.
- ammonium bases derived from (BERNTHSEN), 1884, A., 1357; 1885, A., 814; (BERNTHSEN and HESS), 1885, A., 558.
- amylic bromide (CLAUS and Tosse), 1883, A., 1009.
- arsenious bromide (LANDAU), 1889, A., 211.
- benzyl chloride, and its oxidation (CLAUS and GLYCKHERR), 1883, A., 1009.
- carbonylchloroplatinite hydrochloride (MYLIUS and FOERSTER), 1891, A., 1163.
- cerium nitrate (WILLIAMS), 1889, A., 281.
- chloridide (DITTMAR), 1886, A., 158; (PICTET and KRAFFT), 1892, A., 1357.
- ethiodide, oxidation of (DECKER), 1892, A., 730.
- ethobromide (CLAUS and Tosse), 1883, A., 1008.
- action of nascent hydrogen on (CLAUS and STEGELITZ), 1884, A., 1051.
- ethochloride (CLAUS and Tosse), 1883, A., 1009.
- ethonitrate (CLAUS and Tosse), 1883, A., 1009.
- homologue of (BEYER), 1885, A., 672.
- transformation of homologues of indole into (MAGNANINI), 1887, A., 1113.
- hydrogen diaminechromium thiocyanate (CHRISTENSEN), 1892, A., 1001.
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- second peroxide of (DAFERT), 1883, A., 980.
- methylated derivatives of, condensation-products of (JACOBSEN and REIMER), 1884, A., 335.
- methyl hydroxide, oxidation of (DECKER), 1892, A., 729.
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- propobromide and its dibromide, diiodide, dichloride, and tetriodide (CLAUS and COLLISCHONN), 1887, A., 60.
- propochloride and its dibromide, dichloride and diiodide (CLAUS and COLLISCHONN), 1887, A., 61.
- Quinoline**, propiodide and its dibromide, dichloride, diiodide, tetrabromide, tetrachloride and tetriodide (CLAUS and COLLISCHONN), 1887, A., 61.
- double salts of (BORSBACH), 1890, A., 643.
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- substitution derivatives of (FRIEDLÄNDER and WEINBERG), 1883, A., 351.
- substitution derivatives of, preparation of (FRIEDLÄNDER and GÖHRING), 1883, A., 1148.
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- substitution derivatives of, reduction of (BAMBERGER), 1890, A., 1302.
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- Quinoline**, 2-amido- (FREYDL), 1888, A., 296.
- 4-amido- (DUFTON), 1892, T., 785.
- 2'-amido-, preparation of (EPHRAIM), 1891, A., 1509.
- 3'-amido- (RIEMERSCHMIED), 1883, A., 1148.
- 4'-amido- (HOOGWERFF and VAN DORP), 1892, A., 725.
- $\alpha$ - and  $\beta$ -diamido- (CLAUS and KRAMER), 1885, A., 908.
- bromo-, action of hypochlorous acid on (WELTER), 1891, A., 1248.
- 1-bromo-, and its derivatives (CLAUS and TORNIER), 1888, A., 163.
- 2-bromo-, and its derivatives (CLAUS and TORNIER), 1888, A., 164; (CLAUS and VIS), 1889, A., 280; 1890, A., 173.
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- La Coste's, constitution of (CLAUS and WELTER), 1890, A., 173.
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- 1:2-dibromo-, and its derivatives (CLAUS and VIS), 1890, A., 173.
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2:2'-bromamido- [m.p. 62°] (CLAUS and Vis), 1889, A., 281.

3:4-bromamido- [m.p. 164°] (LA COSTE), 1883, A., 90; (CLAUS and ZUSCHLAG), 1890, A., 267.

2-bromonitro- [m.ps. 244°, 146° and 111°] (CLAUS and POLLITZ), 1890, A., 521.

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3:4-bromonitro- (LA COSTE), 1883, A., 90; (CLAUS and ZUSCHLAG), 1890, A., 267.

3':4-bromonitro-, methylhydroxide of (DECKER), 1892, A., 881.

1:4'-dibromonitro- and 1:4:4'-tribromonitro- [m.ps. 215° and 195°] (CLAUS and WELTER), 1890, A., 1320.

1-chloro-, action of acetamide on (MUHLERT), 1887, A., 848.

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**Quinoline**, 2-chloro-, methylic chloride, methylformyl-*o*-chloramidobenzoic acid and methyl- $\psi$ -chlorisatin from (LA COSTE and BODEWIG), 1885, A., 792.

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3-nitro- (LA COSTE), 1883, A., 811.

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- iso*Quinoline methiodide (GABRIEL), 1887, A., 62; (CLAUS and EDINGER), 1889, A., 415.  
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- iso*Quinoline, bromo-, derivatives of (EDINGER and BOSSUNG), 1891, A., 580.  
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bromonitro-, and its derivatives (EDINGER and BOSSUNG), 1891, A., 580.  
mono- and di-chloro- (GABRIEL), 1886, A., 812; 1887, A., 61.
- Quinolinebenzocarboxylic acids, oxidation of (v. GEORGIEVICS), 1891, A., 1389.
- Quinolinebenzylbetaine (CLAUS and MCHALL), 1885, A., 561.
- Quinoline-betaine (RHOUSOPOULOS), 1883, A., 96.
- Quinoline-blue. See Cyanine.
- Quinoline-2-carboxylic acid and its salts (FISCHER and VAN LOO), 1884, A., 1372; (SKRAUP and BRUNNER), 1886, A., 811; 1887, A., 160.  
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- Quinoline-3-carboxylic acid (FISCHER and WITTMACK), 1884, A., 1052.
- Quinoline-4-carboxylic acid, 1-bromo- (LELLMANN and ALT), 1887, A., 502.
- Quinoline-2'-carboxylic acid (*quin-aldinic acid*) and its salts (DOEBNER and v. MILLER), 1884, A., 185; (WEIDEL and STRACHE), 1886, A., 950.  
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- Quinoline-3'-carboxylic acid and its salts (RIEDEL), 1883, A., 1152; (DOEBNER and v. MILLER), 1885, A., 1079.  
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- Quinoline-4'-carboxylic acid. See Cinchonic acid.
- $\psi$ -Quinoline-4-carboxylonitrile (LELLMANN and REUSCH), 1888, A., 499.
- Quinoline- $\alpha$ -dicarboxylic acid (LA COSTE and VALEUR), 1887, A., 379.
- Quinoline-1:4-dicarboxylic acid (SKRAUP and BRUNNER), 1886, A., 811.
- Quinoline-2':4'-dicarboxylic acid (DOEBNER and PETERS), 1890, A., 176.
- "Quinoline-dioximeanhydride" and "dioximes" (v. KOSTANECKI and REICHER), 1891, A., 580.
- Quinoline- $\alpha$ -disulphonic acid and its derivatives (LA COSTE and VALEUR), 1886, A., 628; 1887, A., 379, 973.
- Quinoline- $\beta$ -disulphonic acid (LA COSTE and VALEUR), 1886, A., 629; 1888, A., 297.
- Quinolinedisulphonic acids, preparation of (ANON.), 1885, A., 945.
- Quinoline-group, attempted synthesis of a nitramine of the (SIMON-THOMAS), 1892, A., 725.
- Quinolinephenacylic bromide (BAMBERGER), 1888, A., 301.
- iso*Quinolinephenacylic bromide (GOLD-SCHMIEDT), 1889, A., 165.
- Quinolinequinol (FISCHER and RENOUF), 1884, A., 1371.
- Quinolinequinones and their derivatives (FISCHER and RENOUF), 1884, A., 1370; (MATHÉUS), 1888, A., 965.
- Quinoline-red and *iso*quinoline-red (v. HOFMANN), 1887, A., 380.
- Quinoline-series, syntheses in the (JUST), 1886, A., 161, 811, 812.  
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- Quinoline-3-sulphobenzylbetaine (CLAUS and STEGELITZ), 1886, A., 628.
- Quinoline-1-sulphonamide and -sulphonbromamide (HOOGWERFF and VAN DORP), 1889, A., 981.
- Quinoline-4-sulphonamide, 1-chloro- (CLAUS and POSSELT), 1890, A., 522.
- Quinolinesulphonic acid, 2'-bromo- (CLAUS and POLLITZ), 1890, A., 521.



**Quinoline-1-sulphonic acid**, oxidation of (FISCHER and RENOUF), 1884, A., 1049; (ZÜRCHER), 1888, A., 378.

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**Quinoline-3-sulphonic acid** and its derivatives (HAPP), 1884, A., 757; (FISCHER and WITTMACK), 1884, A., 1051; (CLAUS and MUCHALL), 1885, A., 561; (CLAUS and STEGELITZ), 1886, A., 628.

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4-bromo- (CLAUS and WÜRTZ), 1890, A., 267.

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1-bromo- (LELLMANN and LANGE), 1888, A., 296.

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**Quinolinesulphonic acids** (CLAUS and KÜTTNER), 1887, A., 278; (FISCHER), 1887, A., 601; (V. GEORGIEVICS), 1888, A., 501; (CLAUS), 1888, A., 728.

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**Quinoline-4-sulphonic bromide**, bromo- (CLAUS and POSSELT), 1890, A., 522.

**Quinoline-4-sulphonic chloride**, 1-chloro- (CLAUS and POSSELT), 1890, A., 522.

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**Quinolinsulphonic acid** and its salts (SEYDA), 1883, A., 1115.

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**Quinoltetracarboxylic anhydride** (NEF), 1890, A., 984.

2'-**Quinolyl disulphide**, mercaptan and ethylic sulphide (ROOS), 1888, A., 500.

2'-**Quinolylacetaldehyde** (EINHORN), 1886, A., 264, 721; (V. MILLER and SPADY), 1886, A., 265, 370; (CARLIER and EINHORN), 1891, A., 83.

2'-**Quinolyl-acetic acid** and -acetylene (CARLIER and EINHORN), 1891, A., 84.

2'-**Quinolylacrylic acid** (V. MILLER and SPADY), 1886, A., 264; (EINHORN and LEHNKERING), 1888, A., 1208.

2'-**Quinolyl- $\beta$ -bromopropionic acid** (EINHORN and LEHNKERING), 1888, A., 1208.

2'-**Quinolyl-dibromomethylene, -dibromopropionic acid** and -dihydroxypropionic acid (CARLIER and EINHORN), 1891, A., 84.

2:2'-**Quinolyl diacrylic acid** (ECKHARDT), 1889, A., 523.

2'-**Quinolyl diphenylcarbamide** (GOLDSCHMIDT and MEISSLER), 1890, A., 501.

2'-**Quinolylethylene** (EINHORN and LEHNKEHRING), 1888, A., 1209.

**Quinolyl-ethylene-quinoline** (CH=2 and 3-) (BULACH), 1889, A., 528.

1-**Quinolylhydrazine** (DUFTON), 1891, T., 756.

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2'-**Quinolylhydroxypropionic acid** (EINHORN), 1886, A., 721.

2'-**Quinolyl- $\beta$ -hydroxypropionic acid**, lactone of (EINHORN and LEHNKERING), 1888, A., 1208.

**Quinolyl-lactamide** and - $\beta$ -lactic acid (EINHORN and LEHNKERING), 1888, A., 1209.

**Quinolyl-p-methenylamidoxime** and its derivatives (BIEDERMANN), 1890, A., 175.

**Quinolyl-p-methenylbenzenylazoxime-p-carboxylic acid** (BIEDERMANN), 1890, A., 176.

**Quinolyl-p-methenyl-carbonylamidoxime, -ethenylazoxime** and -uramidoxime (BIEDERMANN), 1890, A., 176.

1:3-**Quinolylmethylpyrazolone** (DUFTON), 1892, T., 788.

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2'-**Quinolylpropionic acid** (CARLIER and EINHORN), 1891, A., 84.

1-Quinolylsemicarbazide (DUFTON), 1891, T., 758.  
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 o-Quinone, derivatives of (ZINCKE), 1887, A., 808.  
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   compounds of, with nitranilines (HEBE BRAND), 1883, A., 60.  
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   derivatives (NIETZKI), 1884, A., 58.  
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     influence of the presence of halogens and alkyl-groups on the replacement of oxygen by the *isonitroso*-group in (KEHRMANN), 1889, A., 243.  
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   *di-* and *tetra*-bromides (NEF), 1890, A., 1272.  
   *di-* and *tetra*-chlorides and *dichloride-dibromide* (NEF), 1891, A., 1348.  
   halogen derivatives of (LING), 1887, T., 782; 1890, P., 32; 1892, T., 558; P., 105; (LING and BAKER), 1892, T., 589; P., 106.  
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   *tetrabromo-* (*bromanil*) (LING), 1887, T., 148; (GRAEBE and WELTNER), 1891, A., 1028.  
   2:6:3-*di*bromonitro- (GUARESCHI and DACCOMO), 1885, A., 891.  
   *chloro-* (KOLLREPP), 1886, A., 1018.  
   *chloro*-derivatives of (LEVY), 1883, A., 1117.  
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   2:6-*dichloro-* (LING), 1892, T., 559.  
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     action of phosphorus chlorides on (GRAEBE), 1891, A., 1028.  
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   2:6- and 2:5-*chlorobromo-* (NEF), 1891, A., 1348; (LING), 1892, T., 562.  
   *chlorotribromo-* (LING), 1887, T., 783; (LING and BAKER), 1892, T., 590.  
   2:5:3- and 2:6:3-*dichlorobromo-* (LING), 1892, T., 563, 566.  
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     crystalline form of (LEIVEH), 1886, A., 543.  
   2:6-*dichlorodibromo-* (LING), 1892, T., 578.  
   *trichlorobromo-* (LING and BAKER), 1892, T., 592.  
   2:6:3-*chlorobromonitro-* (GARZINO), 1890, A., 1108.  
   2:6:3-*dichloronitro-* (GUARESCHI and DACCOMO), 1885, A., 891.  
   2:5-*di*iodo- (METZELER), 1888, A., 1278.  
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   nitro-derivatives of (NIETZKI), 1883, A., 465.  
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   3:6:2:5-*dinitr*diamido- (NIETZKI), 1887, A., 930.

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**Quinonechlorimide** (FOGH), 1888, A., 593.  
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- Terephthalic chloride**, 2:5-dichloro- (LEVY and CURCHOD), 1889, A., 1179.
- Terephthalic sulphinide** (NOYES and WALKER), 1887, A., 728.
- Terephthalonitrile**, derivatives of (LUCKENBACH), 1884, A., 1157.
- Terephthalophenone** (NÖLTING and KOHN), 1885, A., 389; 1886, A., 349.  
 dioxime (MÜNCHMEYER), 1886, A., 877.
- Terephthalyl ethyl ketone** (MÜNCHMEYER), 1886, A., 877.
- Terfâs** (*kâmes*), relation between truffles and (CHATIN), 1892, A., 654.
- Terfezia Boudieri*, *T. claceryi* and *T. hafazi*, analysis of (CHATIN), 1892, A., 654.
- Terminalia Chebula*, chebulinic acid from (FRIDOLIN), 1885, A., 396.
- TERPENES and THEIR DERIVATIVES** (WALLACH), 1885, A., 550; 1886, A., 70; 1887, A., 595; 1888, A., 60, 1098; 1890, A., 1314; 1891, A., 217, 1078, 1240; (BRÜHL), 1888, A., 377, 494; 1892, A., 200, 347, 624, 1100; (ARMSTRONG), 1891, T., 311; (MARSH and GARDNER), 1891, T., 648, 725; (DUNWODY), 1891, A., 217; (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 623; (BRÜHL and MÜLLER), 1892, A., 772.  
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- from oil of myrtle (JAHNS), 1889, A., 616; (BARTOLOTTI), 1891, A., 1348.  
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**Australene** (*d-pinene*) (BARBIER and HILT), 1889, A., 616; (MARSH and GARDNER), 1891, T., 727.  
*iso***Australene** (BARBIER and HILT), 1889, A., 616.  
**Camphene** (*borneocamphene*, *terecamphene*) (WALLACH), 1886, A., 70; 1891, A., 1082; 1892, A., 868, 1481; (BRÜHL), 1888, A., 377; 1892, A., 625, 1240; (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 624.  
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- Camphene** (*borneocamphene*, *terecamphene*), preparation of (MARSH and GARDNER), 1891, T., 648.  
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**Camphene-series**, thermochemistry of the (BERTHELOT and MATIGNON), 1891, A., 1313.  
 “**Camphenes**, olefinic” (SEMMLER), 1891, A., 540.  
**Caoutchene**. See Dipentene.  
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**Cedrene**, molecular refraction and dispersion of (GLADSTONE), 1886, T., 618; 1891, T., 295.  
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**Colophene**, action of heat on (TILDEN), 1884, T., 417.  
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**Dihydrocamphene** derivatives (TANRET), 1887, A., 676.  
**Dipentene** (*caoutchene*, *cinene*, *i-limonene*) (TILDEN), 1884, T., 413; (HELL and STÜCKE), 1884, A., 1363; (WALLACH and BRASS), 1885, A., 172; (BOUCHARDAT and LAFONT), 1886, A., 890; (BRÜHL), 1888, A., 377; (WALLACH), 1889, A., 1072; 1891, A., 1083.  
 refraction and dispersion equivalents of (GLADSTONE), 1886, T., 618.  
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**Dipentene** (*caoutchene, cinene, i-limonene*), nitrosochloride (WALLACH), 1888, A., 1099; 1889, A., 1070.

**Dipentenitrolaniline** (WALLACH), 1889, A., 1071; 1892, A., 1348. nitroso- (WALLACH), 1892, A., 1348.

**Dipentenitrolbenzylamine** (WALLACH), 1889, A., 1070; (WALLACH and CONRADY), 1889, A., 1072.

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**Dipentenitrolpiperidine** (WALLACH), 1888, A., 1099; 1889, A., 1070; (WALLACH and CONRADY), 1889, A., 1072.

**Diterpene**, a, from urine (LE NOBEL), 1885, A., 668.

**Fenchene** (WALLACH), 1891, A., 1082, 1088.

**Hesperidene**. See *d*-Limonene.

**Laurene** (BRÜHL), 1888, A., 377.

**Licarene** (MORIN), 1888, A., 1308.

*d*-**Limonene** (*carvene, citrene, hesperidene*) (GOLDSCHMIDT), 1884, A., 1138; (BRÜHL), 1888, A., 377; (WALLACH), 1888, A., 1204; 1891, A., 1083.

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thermochemistry of (BERTHELOT and MATIGNON), 1891, A., 1315.

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**tetrabromide** (WALLACH), 1885, A., 550; 1891, A., 1241; (OLIVERI), 1891, A., 1496.

**hydrochloride** (WALLACH), 1888, A., 1098.

**nitrosobromide** (WALLACH), 1888, A., 1098.

**nitroschlorides** (WALLACH), 1888, A., 1098; 1889, A., 1069; 1892, A., 1349; (WALLACH and CONRADY), 1889, A., 1072.

**Limonenenitrolaniline** (WALLACH), 1889, A., 1071; 1892, A., 1348. nitroso- (WALLACH), 1892, A., 1348.

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**Limonenenitrolbenzylamine** (WALLACH), 1889, A., 1070; (WALLACH and CONRADY), 1889, A., 1072.

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**Limonenenitrolpiperidine** (WALLACH), 1889, A., 1070; (WALLACH and CONRADY), 1889, A., 1072.

**Limonenenitrol-*p*-toluidine** hydrochloride (WALLACH), 1888, A., 1099.

**Limonene-series**, isomerism in the (WALLACH), 1892, A., 1348.

*l*-**Limonene** and its derivatives, rotatory power of (WALLACH and CONRADY), 1889, A., 1072.

**Massoyene** (WOY), 1890, A., 638; 1891, A., 464; (WALLACH), 1890, A., 1316; 1891, A., 935.

**Menthene** (BRÜHL), 1888, A., 377; (BERKENHEIM), 1892, A., 866; (SIEKER and KREMERS), 1892, A., 1479.

preparation of (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 623.

transformation of terpine into (BOUCHARDAT and LAFONT), 1889, A., 276.

constitution of (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 624; (BRÜHL), 1892, A., 625.

nitrosochloride (SIEKER and KREMERS), 1892, A., 1479.

**Phellandrene** (PESCI), 1884, A., 331; 1886, A., 1038; (WALLACH), 1887, A., 967; 1891, A., 1084.

physical isomerides of (WALLACH and GILDEMEISTER), 1888, A., 1205.

**Phellandrenediamine** (PESCI), 1886, A., 1038.

**Pinene** (BRÜHL), 1888, A., 377; (WALLACH), 1890, A., 1315; 1891, A., 1081.

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oxidation products of, aldehydic nature of (SCHIFF), 1883, A., 1141.

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**Pinene**, dibromide (WALLACH), 1891, A., 1241.

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nitroso- (*nitrosoterpene*) (GOLDSCHMIDT and ZÜRRER), 1885, A., 1210.

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**Pinenenitrol-allylamine, -amylamine and -propylamine** (WALLACH and FRÜSTÜCK), 1892, A., 998.

**Pinenenitrolbenzylamine** (WALLACH), 1889, A., 1071.

**Pinenenitrolpiperidine** (WALLACH), 1888, A., 1098.

**Pinene-phthalamic acid and -phthalimide** (PESCI), 1891, A., 1086.

**Sesquiterpene** (BRÜHL), 1888, A., 377.

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**Sesquiterpenes** (WALLACH), 1887, A., 596.

**Shikimene** (EIJKMAN), 1886, A., 95.

**Sylvestrene** (WALLACH), 1887, A., 967; (BRÜHL), 1888, A., 377.

and its derivatives, rotatory power of (WALLACH and CONRADY), 1889, A., 1072.

nitrosochloride (WALLACH), 1888, A., 1099.

**Sylvestrenenitrolbenzylamine** (WALLACH), 1889, A., 1071.

**Terebenthene** (*l-pinene*) (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 624; (BRÜHL), 1890, A., 625.

from camphor oil and its derivatives (YOSHIDA), 1885, T., 782.

from frankincense (WALLACH), 1889, A., 1072.

thermochemistry of (BERTHELOT and MATIGNON), 1891, A., 1315.

action of acetic acid and heat on (BOUCHARDAT and LAFONT), 1886, A., 475; 1889, A., 895.

action of aluminium chloride and of bromine on (VARET), 1891, A., 1084.

French, action of formic acid on (LAFONT), 1888, A., 495.

action of picric acid on (LEXTREIT), 1886, A., 71.

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**Terebenthene** (*l-pinene*), oxidation of, in sunlight (ARMSTRONG), 1891, T., 311; (ARMSTRONG and POPE), 1891, T., 315.

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derivatives of (PESCI), 1889, A., 158. hydrochlorides, liquid (BARBIER), 1883, A., 809.

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**Terebenthene**, amido- (PESCI and BETTELLI), 1887, A., 272.

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nitrogen derivatives of (TANRET), 1887, A., 595, 675.

nitro- (PESCI and BETTELLI), 1887, A., 272; (PESCI), 1889, A., 157.

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*d*-**Terebenthene** (PESCI), 1889, A., 157; (ARMSTRONG), 1891, T., 313.

*l*-**Terebenthene** (ARMSTRONG), 1891, T., 313.

**Terecamphene**. See Camphene.

*iso***Terpene** from the resin of *Pinus Abies* (KURILOFF), 1892, A., 625.

constitution of (KANONNIKOFF), 1886, A., 336.

*d-iso***Terpene** (FLAWITZKY), 1887, A., 969.

**Terpene** from French essence of terebenthene (BOUCHARDAT and LAFONT), 1889, A., 897.

heat of combustion of (LUGININ), 1889, A., 328.

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dihydrochloride, molecular refraction and dispersion of in solution (GLADSTONE), 1891, T., 591.

**Terpinene** (WEBER), 1887, A., 596; (WALLACH), 1887, A., 967; 1891, A., 1084.

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**Terpinenenitrol-amine**, -*iso*amylamine, -diethylamine, -dimethylamine, -ethylamine, -methylamine and -piperidine (WALLACH), 1880, A., 60.

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**Terpinolene** (WALLACH), 1886, A., 71; 1887, A., 966.

**$\beta$ -Terebangelene** (NAUDIN), 1883, A., 810.

**Tetrahydropinene** (WALLACH and BERKENHEIM), 1892, A., 998.

**Winterene** (ARATA and CANZONERI), 1890, A., 405.

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**Absinthol** (BRÜHL), 1888, A., 494.

**Borneol**. See Borneol.

**Camphene glycol** (WAGNER), 1890, A., 1313.

**Camphor**. See Camphor.

**Carveol** (LEUCKART), 1887, A., 376.

**Carvol** (*carvole*) (BEYER), 1884, A., 331; (BRÜHL), 1888, A., 495.

constitution of (CLAUS and FAHRION), 1889, A., 880.

derivatives of (GOLDSCHMIDT), 1884, A., 1138; (GOLDSCHMIDT and KISSER), 1887, A., 475, 923; (WALLACH), 1892, A., 499.

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**Carvolphenylhydrazine** (GOLDSCHMIDT), 1884, A., 1138.

**Carvyl phenylamidoformate** (LEUCKART), 1887, A., 376.

**Carvylamine** (GOLDSCHMIDT), 1887, A., 249; (LEUCKART and BACH), 1887, A., 377.

**Cineol** (*cajeputol*; *eucalyptol*) and its derivatives (WALLACH), 1885, A., 171; 1891, A., 1083; (WALLACH and BRASS), 1885, A., 171; (JAHNS), 1885, A., 394; (BRÜHL), 1888, A., 494; (BOUCHARDAT and VOIRY), 1888, A., 719; (VOIRY), 1888, A., 962.  
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**Dihydrocarveol** (WALLACH), 1892, A., 499.

**Fenchone** (WALLACH and HARTMANN), 1891, A., 218; (WALLACH), 1891, A., 1082, 1086.

**Fenchoneoximes** (WALLACH and HARTMANN), 1891, A., 218; (WALLACH), 1891, A., 1087; 1892, A., 1237.

**Fenchonitrile** and its derivatives (WALLACH), 1892, A., 1236.

**Geraniol**, oxidation of (SEMMLER), 1891, A., 30.

**Linalool** (*licareol*) (SEMMLER), 1891, A., 540; (SEMMLER and TIEMANN), 1892, A., 863; (BARBIER), 1892, A., 1236; (SCHIMMEL), 1892, A., 1347.

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**Menthol** (BRÜHL), 1888, A., 494; (BERKENHEIM), 1892, A., 866.

constitution of (BECKMANN), 1889, A., 723; (BRÜHL, BILTZ, CANTZLER and REUTER), 1892, A., 624.

molecular refraction and dispersion of, in solution (GLADSTONE), 1891, T., 591.

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derivatives of (ARTH), 1884, A., 167; 1886, A., 892; (BERKENHEIM), 1892, A., 866.

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**Menthone** and its derivatives (BERKENHEIM), 1892, A., 867.

*d*- and *l*- (BECKMANN), 1889, A., 721.

**Myristicol** (BRÜHL), 1888, A., 494.

**Pulegone** and its oxime (BECKMANN; PLEISSNER), 1891, A., 936.

**Puleone** and its oxime (BARBIER), 1892, A., 627.

**Sobrerol** (*pinol hydrate*) (ARMSTRONG), 1890, P., 100; 1891, T., 313; (ARMSTRONG and POPE), 1891, T., 315; (WALLACH), 1891, A., 218.

**Sobrerone** (*pinol*) and its derivatives (ARMSTRONG), 1890, P., 100; 1891, P., 314; (WALLACH and OTTO), 1890, A., 169.

and its derivatives, oxidation of (WALLACH), 1891, A., 218.

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glycol (*pinol glycol*) and its derivatives (WALLACH), 1891, A., 217; (WALLACH and FRÜSTÜCK), 1892, A., 998.

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ethyl ether (WALLACH and OTTO), 1890, A., 170.

nitrosochloride (WALLACH and OTTO), 1890, A., 170.

**Sobreronenitrol-amine**, -aniline, -benzylamine, - $\beta$ -naphthylamine and -piperidine (WALLACH and OTTO), 1890, A., 170.



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- Terpin** (BRÜHL), 1888, A., 494;  
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persion of, in solution (GLAD-  
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1889, A., 328.  
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(BERKENHEIM), 1892, A., 867.  
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1892, A., 1351.
- Terpineol** (*terpinol*, *i-terpilenol*,  
*terpol*) (TANRET), 1885, A.,  
990; (WALLACH), 1886, A., 70;  
(WEBER), 1887, A., 596;  
(BOUCHARDAT and VOIRY), 1887,  
A., 677; (VOIRY), 1888, A., 962.  
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890.  
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719, 961.
- Terpineols**, action of acids and  
anhydrides on (LAFONT), 1888, A.,  
845.
- Terpenes**. See also Oils, vegetable.
- Terra cotta lumber**, preparation of  
(ANON.), 1883, A., 896.
- Tetanine** (BRIEGER), 1888, A., 1317.
- Tetano-cannabine** (HAY), 1883, A.,  
1156.
- Tetanus** produced by a ptomaine  
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- Tetrabenzoyl-2:4:6-triamidophenol**  
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A., 371.
- Tetrabenzoylisodulcitol** (RAYMAN),  
1887, A., 907.
- Tetrabenzoyl-erythritol** and -levulose  
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- Tetrabenzoylmethane**, preparation of  
(PEEKIN), 1885, T., 253.
- Tetrabenzoylquinone** (MAQUENNE),  
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- Tetrabenzoylacetonedicarboxylic acid**  
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- Tetrabenzyl-carbamide** and -oxamide  
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- Tetrabenzyl-m-** and -*p*-phenylene-  
diamines (MELDOLA and COSTE),  
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- Tetrabenzylphosphonium compounds**  
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- Tetrabenzylsilicon**, crystalline form of  
(POLIS), 1886, A., 619.
- Tetrabenzyltrimethylenetrisulphone**  
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- Tetraisobutylic oxalate** (ANSCHÜTZ),  
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- Tetraisobutylmethylenediamine**  
(EHRENBERG), 1887, A., 1027.
- Tetracetyldiamidoapione** (CIAMICIAN  
and SILBER), 1890, A., 1295.
- Tetracetylamidodihydroxyphenyl-  
quinol** and -quinone (BAMBERGER),  
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- Tetracetyl- $\alpha$ -diamidophenanthraquinol**  
(KLEEMANN and WENSE), 1885, A.,  
1240.
- Tetracetyldiamidothymol** and its  
acetate (MAZZARA), 1891, A., 188.
- Tetracetyl-di-** and -*tri*-bromobrazileins  
(SCHALL and DRALLE), 1890, A.,  
997.
- Tetracetylenedicarboxylic acid** (v.  
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- Tetracetylethylidiresorcinol** (HERZIG  
and ZEISEL), 1891, A., 75.
- Tetracetylloxanthic acid** (HERZIG),  
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- Tetracetylhydrindigotin** (LIEBER-  
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- Tetracetylhydroxyanthranol** (LIEBER-  
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- Tetracetylmucic acid** (MAQUENNE),  
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- Tetracetylpenterythritol** (TOLLENS and  
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- Tetracetylphenolglucoside** (MICHAEL),  
1884, A., 439.
- Tetracetylquinic acid** (ERWIG and  
KOENIGS), 1889, A., 991.
- Tetracetylquinol**, 2-chlor-3:6-diamido-  
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- Tetracetylrosaniline** (RENOUF), 1883,  
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- Tetracetylisosaccharic acid** (TIEMANN  
and HAARMANN), 1886, A., 690.
- Tetracetylsativic acid** (HAZURA), 1887,  
A., 799.
- Tetracresotide** (BARGIONI and SCHIFF),  
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- Tetradecahydroanthracene** (LUCAS),  
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- Tetradecaldoxime** and **tetradecyl-  
amine** (KRAFFT), 1890, A., 1234.
- Tetradecane** (*dikeptyl*) (SORABJI), 1885,  
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998.

- Tetradecenoic acid** (*hexylpentylacrylic acid*;  $C_{14}H_{26}O_2$ ) (PERKIN), 1883, T., 48, 62, 66.
- Tetradecenoic aldehyde** ( $C_{14}H_{26}O$ ) (PERKIN), 1883, T., 49.
- Tetradecenyl alcohol** (*heptylpentyl-ethyl alcohol*;  $C_{14}H_{28}O$ ) (PERKIN), 1883, T., 54.
- Tetradecinenene** (*methylundecylacetylene*) (KRAFFT and REUTER), 1892, A., 1164.
- Tetradecoic acid** (*heptylpentylacetic acid*;  $C_{14}H_{28}O_2$ ) (PERKIN), 1883, T., 75, 79.
- Tetradecylacetylene** (KRAFFT and REUTER), 1892, A., 1163.
- Tetradecylene**, preparation of (KRAFFT), 1884, A., 571.
- Tetradecylenic bromide** (KRAFFT), 1884, A., 1108.
- Tetradecylic alcohol**, preparation of (KRAFFT), 1883, A., 1075.
- Tetradecylidene** (KRAFFT), 1884, A., 1108.
- Tetradecyl-malonamic and -malonic acids** (HELL and IORDANOFF), 1891, A., 821.
- Tetradymite** from Arizona (GENTH), 1891, A., 154.  
from Zsupkó and from Rézbánya (LOCZKA), 1892, A., 1054.  
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- Tetraethyl-**. See Tetrethyl-.
- Tetragalactangeddic acid** (O'SULLIVAN), 1891, T., 1069.
- Tetrahedrite** (*fahlore*) (GONNARD), 1885, A., 220.  
of Příbram (BABÁNEK), 1886, A., 514.  
from the Alaska vein, Colorado (LEIVEH), 1886, A., 21.  
and zinc-blende, parallel growth of (BECKE), 1886, A., 207.
- Tetrahydrozoresorufin** (BRUNNER and KRAEMER), 1884, A., 1334.
- Tetrahydroacenaphthene** (BAMBERGER and LODTER), 1888, A., 292; (LIEBERMANN and SPIEGEL), 1889, A., 720.
- Tetrahydro- $\gamma$ -anthracenecarboxylic acid** (BÖRNSTEIN), 1884, A., 330.
- Tetrahydrobenzoic acid** and its derivatives (ASCHAN), 1891, A., 1053.
- Tetrahydrobenzoic acids**,  $\Delta^1$ - and  $\Delta^2$ - and their derivatives (ASCHAN), 1891, A., 1481.
- Tetrahydrocarbazolecarboxylic acid** (v. BAeyer and TUTEIN), 1889, A., 1181.
- Tetrahydrocinchoninic acid**, hydrochloride of (WEIDEL and HAZURA), 1885, A., 561.
- Tetrahydrodibenzylidene-2:6-lutidine** (SCHUSTER), 1892, A., 1361.
- Tetrahydrodicollidine**, and its derivatives (HANTZSCH), 1883, A., 84.
- Tetrahydrodicoumaric acid** and its salts (DYSON), 1887, T., 68.
- Tetrahydrodicoumarin** (DYSON), 1887 T., 70.
- Tetrahydrodiphenyl** (BAMBERGER and LODTER), 1888, A., 293.
- Tetrahydrodiphenylic dibromide** and its bromo-derivative (BAMBERGER and LODTER), 1888, A., 604.
- Tetrahydrodiquinoline** (FRIEDLÄNDER and WEINBERG), 1885, A., 990.
- Tetrahydroharmine** (FISCHER), 1889, A., 730.
- Tetrahydro- $\alpha$ -naphthabenzylamine** (BAMBERGER and LODTER), 1887, A., 719.
- Tetrahydro- $\beta$ -naphthabenzylamine** (BAMBERGER and BOECKMANN), 1887, A., 840.
- Tetrahydronaphthalene** (GRAEBE and GUYE), 1884, A., 608.  
derivatives (PERKIN), 1887, P., 92; 1888, T., 1; (KIPPING), 1887, P., 93.
- Tetrahydro- $\alpha$ -naphthalene** (BAMBERGER and BORDT), 1889, A., 717; (BAMBERGER and KITSCHOLT), 1890, A., 1146.
- Tetrahydro- $\alpha$ -naphthalene, ar-amidoazo-** (BAMBERGER and LENGELD), 1890, A., 1305.
- Tetrahydronaphthaleneazo- $\alpha$ -naphthylamine**, and -resorcinol (BAMBERGER and BORDT), 1889, A., 715.
- Tetrahydronaphthaleneazo- $\beta$ -naphthylamine**, 1:4-amido- (BAMBERGER and BAMMANN), 1889, A., 783.
- $\beta\beta$ -Tetrahydronaphthalenedicarboxylic acid** (PERKIN), 1888, T., 11, 20.  
synthesis of (v. BAeyer and PERKIN), 1884, A., 907.
- $\beta\beta$ -Tetrahydronaphthalenedicarboxylic anhydride** (PERKIN), 1888, T. 12.
- Tetrahydronaphthalenesulphonic acid**, hydrolysis of (FRIEDEL and CRAFTS), 1889, A., 1201.
- Tetrahydronaphthalenesulphonic acids** (GRAEBE and GUYE), 1884, A., 608.
- Tetrahydronaphthalenetetracarboxylic acid** (PERKIN; KIPPING), 1887, P., 93.
- ar-Tetrahydro- $\alpha$ -naphthamide** (BAMBERGER and BORDT), 1889, A., 716.
- ar-Tetrahydro- $\alpha$ -naphthaquinol** (BAMBERGER and LENGELD), 1890, A., 1205.
- Tetrahydro- $\alpha$ -naphthaquinoline** and its *p*-amido-derivative (BAMBERGER and STETTENHEIMER), 1891, A., 1258.

- Tetrahydro- $\beta$ -naphthaquinoline** (BAMBERGER and MÜLLER), 1891, A., 1510.
- ar*-**Tetrahydro- $\alpha$ -naphthaquinone** (BAMBERGER and LENGFELD), 1890, A., 1305.
- Tetrahydro-naphthathionine and -naphthindamine** (BAMBERGER), 1890, A., 1300.
- Tetrahydro- $\alpha$ -naphthoic acid** (BAMBERGER and BORDT), 1889, A., 716; (V. BAEYER, SCHODER and BESEMFELDER), 1892, A., 192.
- ac*-**Tetrahydro- $\alpha$ -naphthoic acids** (V. SOWINSKI), 1891, A., 1380.
- Tetrahydro- $\beta$ -naphthoic acid** (V. SOWINSKI), 1891, A., 1381; (V. BAEYER, SCHODER and BESEMFELDER), 1892, A., 194.
- ar*-**Tetrahydro- $\alpha$ -naphthol** (BAMBERGER and ALTHAUSSE), 1888, A., 960; (BAMBERGER and BORDT), 1890, A., 508.
- amido- (BAMBERGER and BAMMANN), 1889, A., 783.
- ac*-**Tetrahydro- $\beta$ -naphthol** (BAMBERGER and LODTER), 1890, A., 506.
- ar*-**Tetrahydro- $\beta$ -naphthol** (BAMBERGER and KITSCHOLT), 1890, A., 627, 633.
- Tetrahydro- $\alpha$ -naphthonitrile and - $\alpha$ -naphthothiamide** (BAMBERGER and BORDT), 1889, A., 716.
- Tetrahydro- $\alpha$ -naphthylamine** (BAMBERGER), 1888, A., 159; (BAMBERGER and ALTHAUSSE), 1888, A., 959; (BAMBERGER and BORDT), 1889, A., 715; (BAMBERGER and BAMMANN), 1889, A., 782, 784.
- Tetrahydro- $\beta$ -naphthylamine and its derivatives** (BAMBERGER), 1888, A., 159; (BAMBERGER and MÜLLER), 1888, A., 599, 712.
- ac*- and *ar*- (BAMBERGER and KITSCHOLT), 1890, A., 631.
- Tetrahydronaphthylamine compounds, relations between the physiological properties and constitution of** (BAMBERGER and FILEHNE), 1889, A., 737.
- Tetrahydro- $\beta$ -naphthylaminephenylcarbamide** (BAMBERGER and MÜLLER), 1888, A., 600.
- Tetrahydronaphthylanisole** (KOENIGS and MAI), 1892, A., 1445.
- ac*-**Tetrahydro- $\beta$ -naphthylbenzylideneamine** (BAMBERGER and KITSCHOLT), 1890, A., 632.
- Tetrahydro- $\beta$ -naphthylcarbonylamine tetrahydro- $\beta$ -naphthylcarbonyl*di*-thiocarbamate** (BAMBERGER and HELWIG), 1889, A., 1198.
- $\beta$ -Tetrahydronaphthyl*di*ethylamines, isomeric** (BAMBERGER and WILLIAMSON), 1889, A., 1000.
- Tetrahydronaphthylene chlorhydrin and oxide** (BAMBERGER and LODTER), 1891, A., 1072.
- ar*-**Tetrahydro-1:4-naphthylene*di*-chloro*di*imide** (BAMBERGER), 1890, A., 1300.
- Tetrahydro-1:2-naphthylenediamines, *ac*- and *ar*-** (BAMBERGER and SCHIEFFELIN), 1889, A., 893.
- ar*-**Tetrahydro-1:4-naphthylenediamine** (BAMBERGER and SCHIEFFELIN), 1889, A., 893.
- ac*-**Tetrahydro-1:4'-naphthylenediamine** (BAMBERGER and ABRAHAM), 1889, A., 782.
- decomposition of, into its optically active components (BAMBERGER), 1890, A., 511.
- tetrahydroamidonaphthylthiocarbamate (BAMBERGER and BAMMANN), 1889, A., 783.
- $\alpha$ -Tetrahydronaphthylethylamine** (BAMBERGER and HELWIG), 1889, A., 891.
- hydrochloride, *p*-nitroso- (BAMBERGER and HELWIG), 1889, A., 892.
- $\beta$ -Tetrahydronaphthylethylamines, *ac*- and *ar*-** (BAMBERGER and MÜLLER), 1889, A., 888, 890.
- Tetrahydronaphthylhydrazine, amido-** (BAMBERGER and BAMMANN), 1889, A., 784.
- Tetrahydro- $\alpha$ -naphthylhydrazine hydrochloride** (BAMBERGER and BORDT), 1889, A., 717.
- ac*-**Tetrahydro- $\beta$ -naphthyllic acetate, benzoate, sodium carbonate, chloride and phenylcarbamate** (BAMBERGER and LODTER), 1890, A., 507.
- Tetrahydronaphthylphenol** (KOENIGS), 1891, A., 571; (KOENIGS and MAI), 1892, A., 1445.
- Tetrahydronaphthylthiocarbamide, *di*-amido-** (BAMBERGER and BAMMANN), 1889, A., 783.
- ac*-**Tetrahydro- $\beta$ -naphthylxanthic acid, sodium salt of** (BAMBERGER and LODTER), 1890, A., 508.
- Tetrahydro-*p*-oxazine** (KNORR), 1889, A., 1218.
- Tetrahydropapaverine and its derivatives** (GOLDSCHMIEDT), 1887, A., 163.
- Tetrahydrophthalic acids,  $\Delta^1$ ,  $\Delta^2$ ,  $\Delta^3$ , and  $\Delta^4$ , *cis*-trans (V. BAEYER), 1890, A., 1279; 1892, A., 1216.**



- Tetrahydrophthalic anhydrides**,  $\Delta^1$ ,  $\Delta^2$ , and  $\Delta^4$ -*cis*trans (v. BAEYER), 1890, A., 1280.
- Tetrahydropicoline**,  $\Delta^2$  (LIPP), 1887, A., 277; 1892, A., 1243.
- Tetrahydropicolinic acid**, chloro- (OST), 1883, A., 794.
- Tetrahydropinene** (WALLACH and BERKENHEIM), 1892, A., 998.
- Tetrahydropyrazine** (GARZINO), 1892, A., 633.
- Tetrahydropyridine**. See Piperidine.
- Tetrahydropyridylacrylic acid**. See Anhydroecgonine.
- Tetrahydropyrroline**. See Pyrrolidine.
- Tetrahydroquinaldine**. See 2'-Methyl-tetrahydroquinoline.
- Tetrahydro-*p*-quinanisoil**. See 3-Methoxytetrahydroquinoline.
- Tetrahydroquinazoline**, thio- (BUSCH), 1892, A., 1496.
- Tetrahydroquininic acid** (SRPEK), 1890, A., 177.
- Tetrahydroquinoline** (HOFFMANN and KOENIGS), 1883, A., 1143.  
from crude quinoline (OECHSNER DE CONINCK), 1883, A., 739.  
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benzyl derivatives of (LELLMANN and PEKRUN), 1891, A., 88.  
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hydrochloride, spectrum of (HARTLEY), 1885, T., 735.  
methochloride (OSTERMAYER), 1885, A., 672.
- Tetrahydroquinoline**, *p*-amido- (ZIEGLER), 1888, A., 609.  
*d*-nitro- (SIMON-THOMAS), 1892, A., 726.  
*p*-mono- and *di*-nitroso- (ZIEGLER), 1888, A., 610.
- Tetrahydroquinoline-2-carboxylic acid** (FISCHER and KÖRNER), 1884, A., 1197; (LELLMANN and ALT), 1887, A., 503.
- Tetrahydroquinolinedimethylaniline-thiosulphonic indamine** (LELLMANN and BOYE), 1890, A., 1006.
- Tetrahydroquinoline-4-sulphonic acid** (LELLMANN and LANGE), 1888, A., 296.
- Tetrahydroquinolylcarbamide**, and its *d*-nitro-derivative (SIMON-THOMAS), 1892, A., 725.
- Tetrahydroretene** (BAMBERGER and LODTER), 1888, A., 292.
- Tetrahydroterephthalic acid**,  $\Delta^1$ - (v. BAEYER), 1887, A., 370.  
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oxidation of (v. BAEYER and HERB), 1890, A., 1134.  
hydrobromide (v. BAEYER), 1888, A., 1074.
- Tetrahydroterephthalic acid hydr-iodide**,  $\Delta^2$ -*cis*trans (v. BAEYER and HERB), 1890, A., 1134.
- Tetrahydroterephthalic acids** (v. BAEYER), 1889, A., 1176, 1178.
- Tetrahydro- $\alpha$ -thiophencarboxylic acid** and its salts (ERNST), 1887, A., 471.  
thermochemistry of (STOHMANN and KLEBER), 1891, A., 376.
- Tetrahydrothiophen-2:5-dicarboxylic acid** (ERNST), 1887, A., 237.
- Tetrahydroxyisoamylidenephosphonium iodide** (DE GIRARD), 1884, A., 1119.
- Tetrahydroxyanthraquinoline** (GRAEBE and PHILIPS), 1891, A., 1240.
- Tetrahydroxyanthraquinone**, boiling point of (SCHWEITZER), 1891, A., 1240.  
(*rufigiopine*) (NÖLTING), 1883, A., 65.
- 1:2:1':4'-Tetrahydroxyanthraquinone** (*quinalizarin*; *alizarin-bordeaux*) and its derivatives (LIEBERMANN and WENSE), 1887, A., 593; (SCHMIDT; GATTERMANN), 1891, A., 935.  
formation of, from alizarin (GRAEBE), 1891, A., 463.
- 1:3:2':4'-Tetrahydroxyanthraquinone** (*anthrachryson*) (NOAH), 1886, A., 556.
- Tetrahydroxyanthraquinones** ( $\alpha$ - and  $\beta$ -*oxyanthragallols*) (NOAH), 1887, A., 56.
- Tetrahydroxyaurindicarboxylic acid** (CARO), 1892, A., 1469.
- 1:2:3:4-Tetrahydroxybenzene**. See Apionol.

- 1:2:3:5-Tetrahydroxybenzene diethyl ether. See Diethoxydihydroxybenzene.
- 1:2:4:5-Tetrahydroxybenzene (LOEWY), 1886, A., 1028; (NIETZKI and SCHMIDT), 1888, A., 1182; (BÖNINGER), 1889, A., 878.
- amido-, hydrochloride (NIETZKI and SCHMIDT), 1889, A., 969.
- diamido-, and its derivatives (NIETZKI and BENCKISER), 1885, A., 780.
- nitramido- (NIETZKI), 1884, A., 58.
- Tetrahydroxybenzophenone and its derivatives (GRAEBE and EICHENGRÜN), 1892, A., 1225.
- Tetrahydroxybutanetricarboxylic acid (DÜLL), 1891, A., 547.
- Tetrahydroxydiphenyl. See Diquinol and Diresorcinol.
- Tetrahydroxydiphenylmethane (BARTH and SCHREDER), 1883, A., 59.
- (methylenediresorcinol) (CARO), 1892, A., 856.
- Tetrahydroxydiphthalyl (GOLDSCHMIEDT and EGGER), 1891, A., 1372.
- Tetrahydroxyditolyl (BRUNNER), 1889, A., 997; (DENINGER), 1890, A., 39.
- Tetrahydroxyethylidenephosphonium compounds (MESSINGER and ENGELS), 1888, A., 442.
- iodide (DE GIRARD), 1884, A., 1119.
- Tetrahydroxyoctolactone (BULITSCH), 1888, A., 450.
- Tetrahydroxypropylidenephosphonium compounds (MESSINGER and ENGELS), 1888, A., 442.
- Tetrahydroxyquinone, formula of (NIETZKI and KEHRMANN), 1888, A., 263.
- action of *o*-phenylenediamine on (KEHRMANN), 1890, A., 1265.
- salts of (NIETZKI and BENCKISER), 1885, A., 780.
- Tetrahydroxyquinoneanilide (NIETZKI and SCHMIDT), 1888, A., 944.
- Tetrahydroxystearic acid. See Sativic acid.
- Tetrahydroxyterephthalic acid (LOEWY), 1886, A., 1028.
- Tetrahydroxytoluene, *p*-nitro- (KEHRMANN and BRASCH), 1889, A., 970.
- Tetrahydroxyvaleric acid (*arabonic acid*) (BAUER), 1885, A., 500; 1886, A., 869; (KILIANI), 1887, A., 230.
- phenylhydrazide of (FISCHER), 1890, A., 1398.
- (*ribonic acid*) (FISCHER and PILOTY), 1892, A., 438.
- Tetraketohexamethylene, tribromo- (LANDOLT), 1892, A., 836.
- tetrabromo- (NEF), 1890, A., 1272.
- trichloro-, hydrate (LANDOLT), 1892, A., 835.
- tetrachloro- (NEF), 1890, A., 1271; (LANDOLT), 1892, A., 836.
- dichlorodibromo- (NEF), 1890, A., 1271.
- Tetraketopiperazines, attempts to prepare (BISCHOFF and NASTVOGEL), 1890, A., 1164.
- Tetralkylammonium iodides, formation of (H. and A. MALBOT), 1892, A., 133.
- action of potassium on (THOMPSON and CUNDALL), 1888, T., 761; P., 79.
- Tetramethoxydiamidodiphenyl and its derivatives (BAESSLER), 1884, A., 1330; 1887, A., 364.
- Tetramethoxybenzene (WILL), 1888, A., 458.
- Tetramethoxybenzhydroltricarboxylic acid (*tetramethoxydicarboxydiphenylglycollic acid*) (GOLDSCHMIEDT and EGGER), 1891, A., 1372.
- Tetramethoxydihydrodiphtalyl (GOLDSCHMIEDT and EGGER), 1891, A., 1373.
- Tetramethoxy-diphthalyl and -diphthalylidicarboxylic acid (GOLDSCHMIEDT and EGGER), 1891, A., 1371.
- Tetramethoxyditolyl (BRUNNER), 1889, A., 997.
- Tetramethoxyindigodicarboxylic acid (LIEBERMANN), 1886, A., 468.
- Tetramethoxyquinhydrone, tetrachloro- (KEHRMANN), 1891, A., 905.
- Tetramethylaldine. See Tetramethylpyrazine.
- Tetramethylallylalkine. See Hydroxytetramethylpropylenediamine.
- Tetramethylisoallylene (VAUBEL), 1891, A., 997.
- Tetramethyldiamidoarsenobenzene (MICHAELIS and RABINERSON), 1892, A., 1321.
- Tetramethyldiamidoazobenzene (*dimethylamidobenzeneazodimethylaniline*) (NÖLTING and KOHN), 1885, A., 386; (BARBIER and VIGNON), 1888, A., 54.
- Tetramethyldiamidobenzhydrol (*tetramethyldiamidodiphenylcarbinol*), condensation of, with xyldine, mesidine,  $\psi$ -cumidine, isoduridine and prehnidine (NÖLTING), 1892, A., 188.
- derivatives of (NATHANSON and MÜLLER), 1889, A., 1189.

- Tetramethyldiamidobenzophenone** (ZIEGLER), 1887, A., 674.  
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 derivatives and reactions of (NATHANSON and MÜLLER), 1889, A., 1188.  
 nitramine derived from (VAN ROMBURGH), 1888, A., 1196.  
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- Tetramethyltriamidobenzophenone** (NATHANSON and MÜLLER), 1889, A., 1189.
- Tetramethyldiamidochloroethoxyquinone** (KEHRMANN), 1891, A., 904.
- Tetramethyldiamidodichloronitrotriphenylmethane** (KOCK), 1887, A., 837.
- Tetramethyldiamidodinaphthylphenylmethane** (*phenyltetramethyldiamidinaphthylmethane*) (FRIEDLÄNDER and WELMANS), 1889, A., 151.
- Tetramethyldiamidodiphenyl** (*tetramethylbenzidine*) (MICHLER and PATTINSON), 1884, A., 747; (GIRAUD), 1890, A., 138; (LAUTH), 1891, A., 457.  
 derivatives (MICHLER and PATTINSON), 1884, A., 747.  
*m*-diamido- (LAUTH), 1892, A., 1222. (*tetramethyldiphenylene*) (REULAND), 1890, A., 167.
- Tetramethyldiamidodiphenylamine**, oxidation of (BERNTSEN), 1884, A., 597.
- Tetramethyldiamidodiphenylcarbinol**. See *Tetramethyldiamidobenzhydrol*.
- Tetramethyldiamidodiphenylethane** (HEUMANN and WIERNIK), 1887, A., 674; (TRÖGER), 1888, A., 287.
- Tetramethyldiamidodiphenylheptane** (KRAFFT), 1887, A., 253.
- Tetramethyldiamidodiphenylmethane** (WIERNIK), 1889, A., 130; (VAN ROMBURGH), 1889, A., 146.  
 nitro- (VAN ROMBURGH), 1889, A., 146.
- Tetramethyldiamidodiphenylmethoxymethylquinolylmethane** (NÖLTING), 1892, A., 190.
- Tetramethyltriamidodiphenylmethoxytolylmethane** (NÖLTING), 1892, A., 190.
- Tetramethyldiamidodiphenylphenylamidonaphthylcarbinol** (*Victoria blue*) (NATHANSON and MÜLLER), 1889, A., 1190.
- Tetramethyldiamidodiphenylphenylmethylanidonaphthylcarbinol** and its derivatives (NATHANSON and MÜLLER), 1889, A., 1191.
- Tetramethyldiamidodiphenylquinolylmethane** (NÖLTING), 1892, A., 190.
- Tetramethyldiamidodiphenylthienylmethane** (LEVI), 1887, A., 481.
- Tetramethyldiamidodiphenyltolylmethane**, *p*-nitro- (NÖLTING), 1891, A., 727.
- Tetramethyltriamidodiphenyltolylmethanes** and their derivatives (NÖLTING), 1892, A., 187.
- Tetramethyldiamidoditolynitrophenylmethane** (KOCK), 1887, A., 837.
- Tetramethyldiamidophenylmethane**, action of sulphur on (WALLACH), 1891, A., 189.
- Tetramethyldiamidoquinone**, preparation of (KEHRMANN), 1890, A., 757.
- Tetramethyldiamidothiobenzophenone** and its derivatives (BAITHER), 1887, A., 816; 1888, A., 289.
- Tetramethyldiamidotoluene** (*tetramethyltolylenediamine*) (NIEMENTOWSKI), 1887, A., 938.
- Tetramethyldiamidotriphenylethane** (DOEBNER and PETSCHOW), 1888, A., 288.
- Tetramethyldiamidotriphenylmethane**. See *Leucomalachite-green*.
- Tetramethyltriamidotriphenylmethane**, derivatives of (NATHANSON and MÜLLER), 1889, A., 1189.
- Tetramethylammonium salts**, action of heat on (LAWSON and COLLIE), 1888, T., 624; P., 61.  
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*di*bromiodide and *dichloriodide* (DOBBIN and MASSON), 1886, T., 848, 850.  
 cyanide and its salts (THOMPSON), 1884, A., 286; (CLAUS and MERCK), 1884, A., 338.  
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*heptiodide* and *noniodide* (GEUTHER), 1887, A., 910.  
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- Tetramethylantracene** (FRIEDEL and CRAFTS), 1887, A., 1102.
- Tetramethylapionol** (CIAMICIAN and SILBER), 1890, A., 36.  
*d*initro- (CIAMICIAN and SILBER), 1890, A., 1295.



- Tetramethylazyline** (NÖLTING and BAUMANN), 1885, A., 385; (NÖLTING and KOHN), 1885, A., 386.  
hydrochloride (NÖLTING), 1885, A., 895.
- Tetramethylbenzamide** (HARRIS), 1890, A., 158.
- Tetramethylbenzamidobenzophenone**, action of nitrous acid on (HERZBERG and POLONOWSKY), 1892, A., 185.
- Tetramethylbenzene** (v. HOFMANN), 1884, A., 1320.  
amido- (*duridine*) [b.p. 253°] (v. HOFMANN), 1884, A., 1320.
- 1:2:3:4-Tetramethylbenzene**. See Prehnitene.  
5-amido- (*prehnidine*) [b.p. 260°] (LIMPACH), 1888, A., 464.
- 1:2:3:5-Tetramethylbenzene**. See *isodurene*.  
4-amido- (*isoduridine*) (NÖLTING and BAUMANN), 1885, A., 384, 893.
- 1:2:4:5-Tetramethylbenzene**. See *Durene*.
- Tetramethylbenzenecarboxylic acid**. See Tetramethylbenzoic acid.
- Tetramethylbenzenethio-carbamide and -carbimide** (v. HOFMANN), 1884, A., 1320.
- Tetramethylbenzidine**. See Tetramethyldiamidodiphenyl.
- 1:2:3:4-Tetramethylbenzoic acid** (GOTT-SCHALK), 1888, A., 261.
- 1:2:4:5-Tetramethylbenzoic acid** (*dur-enecarboxylic acid*) (JACOBSEN), 1889, A., 877.
- Tetramethylbenzoic acids**, 1:2:3:4- and 1:2:3:5- (CLAUS and FOECKING), 1888, A., 276.
- Tetramethylbenzophenone** (*benzoyliso-durene*) (ESSNER and GOSSIN), 1885, A., 253.
- Tetramethylbenzoylbenzoic acid** (*o-duroylbenzoic acid*) (FRIEDEL and CRAFTS), 1889, A., 242.
- Tetramethylbrazilein** (SCHALL and DRALLE), 1888, A., 295; 1889, A., 55.  
derivatives of (SCHALL and DRALLE), 1889, A., 55.
- Tetramethylbutallylcarbinammonium iodide**. See Trimethylhexenylammonium iodide.
- Tetramethyldiethyl-p-phenylenediammonium diiodide** (LIPPMANN and FLEISSNER), 1884, A., 178.
- Tetramethyldihydroanthracene** and its derivatives (ANSCHÜTZ and ROMIG), 1885, A., 768.
- Tetramethyldihydropyridine** (CIAMICIAN and ANDERLINI), 1889, A., 58.
- Tetramethyldihydropyridine**, action of methylic iodide on (ANDERLINI), 1890, A., 67.
- Tetramethyldimethylenedisulphone** (AUTENRIETH), 1887, A., 463.
- Tetramethyldiphenylene** (*tetramethyldiamidodiphenyl*) (REULAND), 1890, A., 167.
- Tetramethyldipicolyl methiodide** (LADENBURG), 1889, A., 161.
- Tetramethyldiquinoline**. See Tetramethylquinolylquinoline.
- Tetramethyldiquinoxaline** (NIETZKI and MÜLLER), 1889, A., 604.
- Tetramethylenaldehyde** (COLMAN and PERKIN), 1887, T., 238.
- Tetramethylene ethyl ketone** (PERKIN and SINCLAIR), 1892, T., 51.  
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- Tetramethylene ethylketoxime** (PERKIN and SINCLAIR), 1892, T., 54.
- Tetramethylene glycol** (DEKKERS), 1891, A., 164.
- Tetramethylene methyl ketone** (COLMAN and PERKIN), 1887, T., 238; P., 12; (PERKIN and SINCLAIR), 1892, T., 47.
- Tetramethylene methyl ketoxime** (PERKIN and SINCLAIR), 1892, T., 49.
- Tetramethylene derivatives** (COLMAN and PERKIN), 1887, T., 228; P., 12; (PERKIN and SINCLAIR), 1891, P., 191; 1892, T., 36.  
*hexabromo-* (SABANÉEFF), 1889, A., 1128.
- Tetramethylene-carbanilide and -carboxylamide** (FREUND and GUDEMAN), 1888, A., 1271.
- Tetramethylenecarboxylic acid** (*pentenoic acid*) and its salts (PERKIN), 1883, A., 1084; 1887, T., 8.  
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- Tetramethylenecarboxylic anhydride** and nitrile (FREUND and GUDEMAN), 1888, A., 1271.  
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- Tetramethylenediamine** (*putrescine*) and its derivatives (LADENBURG), 1886, A., 528; (V. UDRÁNSZKY and BAUMANN), 1889, A., 33, 1024.  
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- Tetramethylene-1:1-dicarboxylic acid** and its salts (PERKIN), 1883, A., 1084; 1887, T., 4.  
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- Tetramethylene-1:2-dicarboxylic acid** and anhydride (PERKIN), 1886, A., 934; 1887, T., 22.
- Tetramethylenedicarboxylic acids** (MARKOWNIKOFF), 1892, A., 1306.  
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- Tetramethylenedinitramine** (DEKERS), 1891, A., 164.
- Tetramethylene-ethylcarbinol** and -ethylcarbonyl acetate (PERKIN and SINCLAIR), 1892, T., 54, 56.
- Tetramethylenemethylamine** (FREUND and GUEDEMAN), 1888, A., 1271.
- Tetramethylenemethyl-carbamide** and -thiocarbamide (FREUND and GUEDEMAN), 1888, A., 1271.
- Tetramethylenemethylcarbinol** (PERKIN and SINCLAIR), 1892, T., 50.
- Tetramethylenephénylcarbinol** and its polymeride (PERKIN and SINCLAIR), 1892, T., 62, 65.
- Tetramethylenepropyl bromide** and iodide (PERKIN and SINCLAIR), 1892, T., 57.
- Tetramethylene-1:1:2:2-tetracarboxylic acid** (PERKIN), 1886, A., 934; 1887, T., 17, 21.
- Tetramethylenic dibromide** (GUSTAVSON and DEMJANOFF), 1889, A., 950.
- Tetramethylenylamine**. See Tetramethylenemethylamine.
- Tetramethylethylene** (*hexylene*), action of chlorine on (CHUPOTSKY), 1885, A., 645; (CHUPOTSKY and MARIUTZA), 1890, A., 727.
- Tetramethylethylene oxide** (*hexylene oxide*) (ÉLTEKOFF), 1883, A., 567.
- $\alpha$ -Tetramethylethylenedipyrroline** (*tetramethyldipyrrolyethylene*) (PAAL and SCHNEIDER), 1887, A., 273.
- Tetramethylglutaramidine** platinochloride (PINNER), 1891, A., 62.
- Tetramethylglycoluril** (FRANCHIMONT and KLOBBIE), 1889, A., 126.
- Tetramethylindamine sulphide**, and thiosulphate (BERNTHSEN), 1889, A., 777.
- 2':3':3:4-Tetramethylindole** (DENNSTEDT), 1889, A., 1209.
- Tetramethylmalonamide** (*dimethylmalondimethyldiamide*) (FRANCHIMONT), 1886, A., 449.
- 1:2:3:4-Tetramethylmandelic acid** (CLAUS and FÖHLISCH), 1889, A., 50.
- Tetramethylmandelic acids**, 1:2:3:5- and 1:2:5:6- (CLAUS and FÖCKING), 1888, A., 275.
- 1:2:3:4-Tetramethylphenol**. See Prehnitol.
- 1:2:4:5-Tetramethylphenol**. See Dure-nol.
- 1:2:3:4-Tetramethylphenyl-5-acetic acid** (CLAUS and FÖHLISCH), 1889, A., 50.
- Tetramethylphenylenediamine** (*prehnitylenediamine*) (TÖHL), 1888, A., 585.  
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- Tetramethyl-*o*-phenylenediamine** (*phenylenetetramethyldiamine*) (FISCHER), 1892, A., 1474.
- Tetramethyl-*m*-phenylenediamine** (VAN ROMBURGH), 1888, A., 1185.
- Tetramethyl-*p*-phenylenediaminethio-sulphonic acid** (BERNTHSEN), 1889, A., 777.
- Tetramethylphenylenesaffranine** (ANON.), 1884, A., 539.
- 1:2:3:4-Tetramethylphenylglyoxylic acid** (CLAUS and FÖHLISCH), 1889, A., 50.
- Tetramethylphenylglyoxylic acids**, 1:2:3:5-, and 1:2:4:5- (CLAUS and FÖCKING), 1888, A., 275.
- Tetramethylphenyllutidonecarboxylic acid** (CONRAD and LIMPACH), 1888, A., 851.
- Tetramethylphloroglucinol**, action of hydrochloric acid on (SPITZER), 1890, A., 1407.  
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- Tetramethylpiperidine** (*methylcopellidine*) and its derivatives (DÜRKOPF), 1885, A., 817.  
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- Tetramethylpyrazine** (*methylketine*; *tetramethylaldine*) (OECONOMIDES), 1887, A., 29; (WOLFF), 1887, A., 465; (BLAUN and MEYER), 1888, A., 1093; (BRAUN), 1889, A., 613.

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- 1:3:4:2'-Tetramethylquinoline** [b.p. 297—300°] (DOEBNER and V. MILLER), 1884, A., 1375.
- Tetramethylquinoline** [b.p. 284°] and its salts (LEW and RIEHM), 1886, A., 721.
- Tetramethylquinolylquinoline** and its derivatives (SCHESTOPAL), 1887, A., 1120.
- Tetramethylrosamine** (HEUMANN and REY), 1890, A., 157.
- Tetramethylstrychnine dihydroxide** (TAFEL), 1890, A., 1448.
- Tetramethylsuccinic acid** (*hexanedicarboxylic acid*) (AUWERS and MEYER), 1889, A., 1145; 1890, A., 132, 479; (AUWERS and GARDNER), 1891, A., 290.
- Tetramethylsuccinic anhydride** (AUWERS and MEYER), 1890, A., 479.
- Tetramethyl-succinimide** and -succinphenylimide (AUWERS and GARDNER), 1891, A., 290.
- Tetramethylsulphonamide** (BEHREND), 1884, A., 285.  
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- Tetrammonocuprammonium bromide.** See Cuprammonium under Copper.
- $\beta$ -Tetranaphthylcarbamide** (KYM), 1890, A., 994; (KÜHN and LANDAU), 1890, A., 1311.  
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- $\beta$ -Tetranaphthylthydiamine, thio-** (KYM), 1889, A., 51.
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- Tetra-*p*-oxybenzoid** (SCHIFF), 1883, A., 385.
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- Tetraphenyldiquinoxaline** (NIETZKI and MÜLLER), 1889, A., 605.
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- Tetraphenylethylenedithiosemithiocarbazide** (BURCHARD), 1890, A., 251.
- Tetraphenyl-1-ethylpyrroline** (FEHLIN), 1889, A., 623.
- Tetraphenylylfurfuran** (*lepiden*), constitution of (MAGNANINI and ANGELI), 1889, A., 729.  
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- Tetraphenyl-1-methylpyrroline** (FEHRLIN), 1889, A., 623.
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- Tetraphenylpyrazine** (*ditolaneazotide*; *tetraphenylaldine*) (JAPP and WILSON), 1886, T., 829; (JAPP and BURTON), 1887, T., 101; (BRAUN and MEYER), 1888, A., 700.  
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- c-Tetraphenylpyrroline** (GARRET), 1889, A., 162.  
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- Tetraphenylsuccinonitrile** (AUWERS and MEYER), 1889, A., 883.
- Tetraphenyltetra carbazone** (CULMANN), 1890, A., 1268.
- Tetraphenylthiophen** (*thiolepiden*; *thionessal*) (ZIEGLER), 1890, A., 1246; (BAUMANN and KLETT), 1892, A., 185.  
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- "Tetraphenylthiodithiosemicarbazide"** (RUHL), 1892, A., 1326.
- Tetraphenyluvinnone** (PERKIN and SCHLOESSER), 1890, T., 956.
- Tetrapropylglutarimidine derivatives** (PINNER), 1891, A., 62.
- Tetrapropylmethylenediamine** (EHRENBERG), 1887, A., 1027.
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- Tetraprotocatechutannic acid** (SCHIFF), 1883, A., 335.
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- α-Tetresorcinoldichroin ether**, bromo- (BRUNNER and CHUIT), 1888, A., 1182.
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- Tetra-p-tolylamidodimethylene-ophenylenediamine** (MOORE), 1890, A., 247.
- p-Tetratolylcarbamide** (HAMMERICH), 1892, A., 1083.
- Tetratolyethane**, Schwartz's (ELBS and WITTICH), 1885, A., 518.
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- Tetra-m- and -p-tolylsilicic acid** (POLIS), 1886, A., 619.
- Tetratomic elements**, combination of (COLSON), 1883, A., 15.
- Tetravinylpyridine** (KARAU), 1892, A., 1483.
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- Tetrazodiphenyl** (TÄUBER), 1891, A., 570.
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- Tetrazole** (BLADIN), 1892, A., 1009.
- Tetrazoleazo-dimethylaniline** and **-β-naphthylamine** (THIELE), 1892, A., 1299.
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- Tetrethoxybenzene** (NIETZKI and RECHBERG), 1890, A., 968.
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- Tetrethylamidooarsenobenzene** (MICHAELIS and RABINERSON), 1892, A., 1321.
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- Tetraphyleuxanthic acid** (HERZIG), 1882, A., 1354.
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- Tetraphylparaleucaniline** (KAESWURM), 1886, A., 553.
- Tetraphylmethylenediamine** (EHRENBURG), 1887, A., 1027.
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- Tetraphylrosamine** (HEUMANN and REY), 1890, A., 157.
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- Tetraphylsuccinamidine and -succinimidine hydrochlorides** (PINNER), 1891, A., 37.
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for benzylamine (*f.*) (PETIT), 1888, A., 1239.

for beryllium fluoride (*n.*) (PETERSEN), 1890, A., 680.

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**Thermochemical data** for the camphene series (*c.* and *f.*) (BERTHELOT and MATIGNON), 1891, A., 1313.

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for carbon disulphide (*c.* and *f.*) (THOMSEN), 1884, A., 249; (BERTHELOT and MATIGNON), 1890, A., 1361.

for carbonic ethers (*c.*) (LUGININ), 1884, A., 547.

for carbonyl chloride (*f.*) (THOMSEN), 1884, A., 250.

for carbonyl sulphide (*c.* and *f.*) (THOMSEN), 1884, A., 249.

**Thermochemical data** for alkaline carbonates in very dilute solution (*f.*) (MULLER), 1889, A., 810.

for charcoal (*c.*) (BERTHELOT and VIEILLE), 1885, A., 326.

for chlorides and sulphates in aqueous solution, relation between (*f.*) (FAY), 1888, A., 401.

for hydrated metallic chlorides (*f.*) (SABATIER), 1889, A., 1043.

for perchloric acid and its salts (*d. f.* and *n.*) (BERTHELOT), 1883, A., 8.

for organic chlorine compounds (*c.* and *f.*) (BERTHELOT and MATIGNON), 1891, A., 1311.

for chromic acid and its salts (*f.*) (BERTHELOT), 1883, A., 642.

for chromous into chromic chloride (*t.*) (RECOURA), 1885, A., 1102.

for the cinnamic acids (*c.*) (OSSIPOFF), 1889, A., 460; (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096; (LIEBERMANN), 1892, A., 469.

for citraconic acid (*n.*) (GAL and WERNER), 1887, A., 205; (*c.*) (LUGININ), 1888, A., 893.

for citric acid (*c.*) (STOHMANN), 1885, A., 857; (*n.*) (GAL and WERNER), 1887, A., 205; (MASSEL), 1892, A., 763.

for coal (*c.*) (SCHEURER-KESTNER), 1884, A., 122; 1885, A., 848, 1020; 1888, A., 774; 1891, A., 520; (SCHWACHHÖFER), 1885, A., 691; (ALEXÉEFF), 1886, A., 757.

for products of the distillation of coal (*c.*) (MAHLER), 1892, A., 395.

for coal-gas (*c.*) (WITZ), 1885, A., 472; (MAHLER), 1892, A., 396.

for colloids (*h.*) (WIEDEMANN and LUEDEKING), 1885, A., 1031.

for some soluble compounds and the law of thermal substitution constants (*f.*) (TOMMASI), 1885, A., 8.

for isocuminic acid (*c.*) (BERTHELOT and LUGININ), 1887, A., 762.

for diazo-derivatives (*f.*) (VIGNON), 1888, A., 774.

for isodibutylene (*c.*) (MALBOT), 1890, A., 320.

for electrolytes (*dis.*) (ARRHENIUS), 1889, A., 1044; 1892, A., 931.

THERMOCHEMISTRY:—*Heat of formation*=*f.*; of *transformation*=*t.*; of *decomposition*=*d.*; of *dissociation*=*dis.*; of *combination*=*cb.*; of *combustion*=*c.*; of *neutralisation*=*n.*; of *substitution*=*sb.*; of *hydration*=*h.*

**Thermochemical data for erythritol** (c.) (STOHMANN), 1885, A., 857; (LUGININ), 1889, A., 668.

for erythroxides (*f.*) (DE FORCRAND), 1890, A., 935; 1891, A., 1312.

for ethane (*f.*) (THOMSEN), 1883, A., 545.

for ethereal salts of some fatty acids (c.) (LUGININ), 1885, A., 327; 1886, A., 192, 757.

for ethyl ether (c.) (STOHMANN), 1887, A., 425.

for ethylene oxide (c. and *f.*) (BERTHELOT), 1883, A., 275.

for ethylene oxide with hydrogen chloride (*cb.*) (BERTHELOT), 1883, A., 174.

for ethylenic perchloride (*f.*) (THOMSEN), 1883, A., 544.

for ethylic alcohol (c. and *f.*) (BERTHELOT and MATIGNON), 1892, A., 1139.

for ethylic acetocyanacetate, benzoylcyanacetate, and cyanomalonate (*n.*) (HALLER and GUNTZ), 1888, A. 894.

for explosive mixtures, some relations between specific heats, dissociation, pressure and (c.) (BERTHELOT), 1883, A., 771.

for fats (c.) (STOHMANN), 1885, A., 857; (*f.*) (STOHMANN and LANGBEIN), 1891, A., 11.

for ferrous sulphide (*f.*) (MÜLLENHOFF), 1885, A., 950.

for fluorides (*f.*) (GUNTZ), 1884, A., 5, 545, 546; (TOMMASI; BERTHELOT), 1884, A., 545; (*n.*) (PETERSEN), 1890, A., 1.

for fluorine compounds (*f.* and *dis.*) (GUNTZ), 1884, A., 1245.

for fluorine with hydrogen (*cb.*) (BERTHELOT and MOISSAN), 1889, A., 1096.

for formylcarbamide (c. and *f.*) (MATIGNON), 1891, A., 1448.

for food constituents and their derivatives (c.) (STOHMANN), 1885, A., 857; (STOHMANN and LANGBEIN), 1892, A., 4.

for formic acid (c.) (JAHN), 1890, A., 99; (c. and *f.*) (BERTHELOT and MATIGNON), 1892, A., 1139.

for fumaric acid (*n.*) (GAL and WERNER), 1887, A., 205; (c.) (LUGININ), 1888, A., 893; (c.

and *f.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097; (STOHMANN), 1892, A., 1041.

**Thermochemical data for certain gases** (*cb.*) (RAABE), 1883, A., 274.

for glucose (c.) (BERTHELOT and RECOURA), 1887, A., 761.

for glutaric acid (*n.*) (MASSOL), 1892, A., 1141.

for glyceric acid (*n.*) (GAL and WERNER), 1887, A., 205.

for glycerol (c.) (STOHMANN), 1885, A., 857.

for potassium glyceroxide (*f.*) (DE FORCRAND), 1887, A., 320.

for glycocine (c.) (STOHMANN), 1885, A., 857.

for mono- and di-sodium glycol (*f.*) (DE FORCRAND), 1888, A., 1238; 1892, A., 421, 576.

for glycollic acid and its salts (*f.*) (DE FORCRAND), 1883, A., 644, 708, 774, 775; (TOMMASI), 1883, A., 703, 775.

for glycollide (*h.*) (DE FORCRAND), 1884, A., 547.

for glyoxal ammonium hydrogen sulphite (*f.*) (DE FORCRAND), 1885, A., 627.

for glyoxal barium and potassium hydrogen sulphites (*f.*) (DE FORCRAND), 1884, A., 959.

for glyoxylic acid and its salts (*n.* and *f.*) (DE FORCRAND), 1886, A., 297.

for graphitic and pyrographitic oxides (c.) (BERTHELOT and PETIT), 1890, A., 448.

for guanidine and nitroguanidine (c.) (MATIGNON), 1892, A., 1142.

for haloid salts (*dis.*, *f.*, *n.* and *t.*) (BERTHELOT), 1884, A., 656.

for hemipinimide (c. and *t.*) (LIEBERMANN), 1892, A., 459.

for hexadecylic alcohol and palmitate (c.) (STOHMANN), 1885, A., 857.

for hippuric acid (c.) (STOHMANN), 1885, A., 857.

for humic acid from sugar (c. and *n.*) (BERTHELOT and ANDRÉ), 1891, A., 1456.

for hydrazine (*n.*) (BERTHELOT and MATIGNON), 1892, A., 261; (BACH), 1892, A., 933; (*f.*) (THOMSEN), 1892, A., 1143.

THERMOCHEMISTRY:—*Heat of formation=f.*; of transformation=*t.*; of decomposition=*d.*; of dissociation=*dis.*; of combination=*cb.*; of combustion=*c.*; of neutralisation=*n.*; of substitution=*sb.*; of hydration=*h.*

**Thermochemical data** for aromatic hydrocarbons (*c.*) (STOHMANN, RODATZ and HERZBERG), 1887, A., 427; (*c.* and *f.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1042.

for solid hydrocarbons (*c.* and *f.*) (BERTHELOT and VIEILLE), 1886, A., 756.

for hydrogen compounds (*f.*) (TOMMASI), 1885, A., 716.

for hydrogen with fluorine (*cb.*) (BERTHELOT and MOISSAN), 1889, A., 1096.

for hydrogen with oxygen (*cb.*) (BOILLOT), 1885, A., 8.

for hydrogen chloride with ethylene oxide (*cb.*) (BERTHELOT), 1883, A., 174.

for hydroxybenzenes (*c.*) (STOHMANN, RODATZ and HERZBERG), 1886, A., 655.

for hydroxybenzoic acids (*f.*, *n.* and *t.*) (BERTHELOT and WERNER), 1885, A., 1103; (*c.* and *f.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.

of hydroxyl for hydrogen (*sb.*) (STOHMANN), 1886, A., 656.

for hydroxylamine and its salts (*f.*) (BERTHELOT and ANDRÉ), 1890, A., 934.

for hyponitrites (*f.*) (BERTHELOT and OGIER), 1883, A., 423; (BERTHELOT), 1889, A., 930.

for inosite (*c.* and *f.*) (BERTHELOT and RECOURA), 1887, A., 1011; (BERTHELOT and MATIGNON), 1890, A., 1360; (STOHMANN and LANGBEIN), 1892, A., 764.

for isomeric inosites (*t.*) (BERTHELOT), 1890, A., 1041.

for iodine and bromine with magnesium (*cb.*) (BEKETOFF), 1892, A., 762.

for iodine chlorides (*f.*) (THOMSEN), 1883, A., 543; (*t.*) (STORTENBEKER), 1892, A., 1387.

for itaconic acid (*n.*) (GAL and WERNER), 1887, A., 205; (*c.*) (LUGININ), 1888, A., 893.

for ketones (*c.*) (LUGININ), 1884, A., 547.

for lauric acid (*c.*) (STOHMANN and RODATZ), 1885, A., 1176.

for double salts of lead and potassium iodides (*f.*) (BERTHELOT), 1883, A., 275.

**Thermochemical data** for lead oxychlorides and oxybromides (*f.*) (ANDRÉ), 1884, A., 384.

for lithium bromide (*f.*) (BODISCO), 1889, A., 1098.

for lithium iodide (*f.*) (BODISCO), 1889, A., 329.

for lithium oxide (*f.*) (BEKETOFF), 1884, A., 1247.

• for magnesium compounds (*f.*) (BERTHELOT), 1887, A., 96.

for magnesium with bromine and iodine (*cb.*) (BEKETOFF), 1892, A., 762.

for malates (*f.* and *n.*) (MASSOL), 1892, A., 260.

for maleic acid (*n.*) (GAL and WERNER), 1887, A., 205; (*c.*) (LUGININ), 1888, A., 893; (*c.* and *f.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097; (STOHMANN and KLEBER), 1892, A., 1041.

for maleic anhydride (*h.*) (OSSIPOFF), 1890, A., 680.

for malic acid (*n.*) (GAL and WERNER), 1887, A., 96, 205; (*f.* and *n.*) (MASSOL), 1892, A., 260.

for malonic acid (*n.*) (GAL and WERNER), 1887, A., 96; (MASSOL), 1888, A., 1240; 1889, A., 857.

for malonates (*f.*) (MASSOL), 1889, A., 958; 1890, A., 1396, 1397.

for sodium mannitol (*f.*) (DE FORCRAND), 1892, A., 800.

for meconic acid (*n.*) (BERTHELOT), 1886, A., 8; (GAL and WERNER), 1887, A., 206.

for mellitic acid (*n.*) (BERTHELOT), 1886, A., 8; (GAL and WERNER), 1887, A., 206; (*c.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.

for mercury compounds (*f.*) (THOMSEN), 1888, A., 1011; (NERNST), 1888, A., 1012.

for mercury oxybromides and oxychlorides (*f.*) (ANDRÉ), 1884, A., 707, 884.

for mesaconic acid (*n.*) (GAL and WERNER), 1887, A., 205; (*c.*) (LUGININ), 1888, A., 893.

for methane (*f.*) (THOMSEN), 1883, A., 544.

for methylaniline (*f.*) (PETIT), 1888, A., 1239.



THERMOCHEMISTRY:—*Heat of formation*=*f.*; *of transformation*=*t.*; *of decomposition*=*d.*; *of dissociation*=*dis.*; *of combination*=*cb.*; *of combustion*=*c.*; *of neutralisation*=*n.*; *of substitution*=*sb.*; *of hydration*=*h.*

**Thermochemical data for di-, tri-, tetra-, penta- and hexa-methylene rings (c. and f.)** (STOHMANN and KLEBER), 1892, A., 1041.

for methylic alcohol and solid methyl salts (c. and f.) (STOHMANN, KLEBER and LANGBEIN), 1890, A., 101.

for methylic alcohol with sodium (cb.) (DE FORCRAND), 1885, A., 1031.

for methylmalonic acid (n.) (MASSOL), 1892, A., 1140.

for methylsuccinic acid (c.) (LUGININ), 1889, A., 5; (c. and f.) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097; (n.) (MASSOL), 1892, A., 1140.

for rock-forming minerals (f.) (DIEULAFAIT), 1886, A., 35.

for permolybdic acid (f.) (PÉCHARD), 1892, A., 1383.

for myristic acid (c.) (STOHMANN and RODATZ), 1885, A., 1176.

for naphthalene (c. and f.) (BERTHELOT and RECOURA; BERTHELOT and LUGININ), 1887, A., 762; (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1042.

for nicotine (n.) (COLSON), 1890, A., 101.

for nitriles (c. and f.) (BERTHELOT and PETIT), 1889, A., 812.

for nitrobenzenes (c. and f.) (PETIT), 1888, A., 1013; (BERTHELOT and MATIGNON), 1892, A., 4.

for nitrogen selenide (d.) (BERTHELOT and VIEILLE), 1883, A., 707.

for nitrogenous compounds derived from albuminoids (c. and f.) (BERTHELOT and ANDRÉ), 1890, A., 936; (c.) (BERTHELOT and ANDRÉ), 1890, A., 937.

for the nitro-group (sb.) (MATIGNON), 1892, A., 1141.

for the nononaphthenes (c.) (OSSIPOFF), 1889, A., 6, 460.

for olefines (c.) (GROSHANS), 1886, A., 498.

for the oxime of opianic anhydride (c. and t.) (LIEBERMANN), 1892, A., 459.

for oxalic acid (c.) (STOHMANN), 1885, A., 857; (JAHN), 1890, A., 100; (n.) (GAL and WERNER), 1887, A., 96.

**Thermochemical data for oxalic acid, mercury salt of (f.)** (BERTHELOT), 1884, A., 706.

for oxaluric acid (c. and f.) (MATIGNON), 1891, A., 1449.

for oxygen with carbon (cb.) (BOILLLOT), 1884, A., 141.

for oxygen with hydrogen (cb.) (BOILLLOT), 1885, A., 8.

for parabanic acid (c. and f.) (MATIGNON), 1891, A., 1449.

for paraffins (c.) (STOHMANN), 1885, A., 857; (c. and f.) (GROSHANS), 1886, A., 498.

for phenol (c.) (STOHMANN), 1885, A., 857; (BERTHELOT and LUGININ), 1887, A., 762.

for phenols (n.) (BERTHELOT and WERNER), 1885, A., 628; (BERTHELOT), 1886, A., 6, 7; (c. and f.) (STOHMANN, RODATZ and HERZBERG), 1887, A., 98; (STOHMANN and LANGBEIN), 1892, A., 763.

for phenyl ethers (c. and f.) (STOHMANN, RODATZ and HERZBERG), 1887, A., 428.

for phenylenediamine salts (f.) (VIGNON), 1888, A., 1012; (n.) (VIGNON), 1889, A., 1099.

for phosphates (f.) (BERTHELOT), 1887, A., 94; (JOLY), 1887, A., 202, 877.

for hypophosphoric acid (n.) (JOLY), 1886, A., 408.

for phosphorus chlorides (f.) (THOMSEN), 1883, A., 544; 1884, A., 250.

for phthalic acid (c.) (STOHMANN), 1885, A., 857.

for phthalates (f.) (COLSON), 1885, A., 1104.

for pierates (f., n. and h.) (TSCHELZOFF), 1885, A., 1103; 1886, A., 841; (f.) (TOMMASI), 1886, A., 408.

for *n*-pimelic acid (c. and f.) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097; (STOHMANN and KLEBER), 1892, A., 1041.

for piperidine (n.) (COLSON), 1890, A., 101.

for platinic bromide and its derivatives (f.) (PIGEON), 1892, A., 3.

for platinic chloride (f.) (PIGEON), 1890, A., 439.

THERMOCHEMISTRY:—*Heat of formation*=*f.*; *of transformation*=*t.*; *of decomposition*=*d.*; *of dissociation*=*dis.*; *of combination*=*cb.*; *of combustion*=*c.*; *of neutralisation*=*n.*; *of substitution*=*sb.*; *of hydration*=*h.*

**Thermochemical data** for potassammonium (*f.*) (JOANNIS), 1890, A., 319.

for potassium salts containing sulphur (*f.*) (BERTHELOT), 1883, A., 706.

for potassium oxide (*f.*) (BEKETOFF), 1884, A., 1247.

for propionic acid (*c.*) (JAHN), 1890, A., 100; (*n.*) (MASSOL), 1891, A., 1313.

for alkali propionates (*n.*) (MASSOL), 1891, A., 1313.

for pyridine (*n.*) (COLSON), 1890, A., 101.

for pyrocatechol (*c.*) (STOHMANN), 1885, A., 857.

for disodium pyrocatechol (*n.*) (DE FORCRAND), 1892, A., 1185.

for the pyrocitric acids (*c.*) (LUGNIN), 1888, A., 893.

for pyrogallol (*c.*) (STOHMANN), 1885, A., 857; (BERTHELOT and LUGNIN), 1887, A., 762.

for pyrogallols (*f.* and *n.*) (DE FORCRAND), 1892, A., 1313, 1446.

for quercitol and quinic acid (*c.* and *f.*) (BERTHELOT and RECOURA), 1887, A., 1011.

for quinol (*c.*) (BERTHELOT and LUGNIN), 1887, A., 762.

for sodium quinol (*n.*) (DE FORCRAND), 1892, A., 1185.

for quinone (*c.*) (BERTHELOT and RECOURA; BERTHELOT and LUGNIN), 1887, A., 762.

for resorcinol (*c.*) (STOHMANN), 1885, A., 857.

for sodium resorcinol (*n.*) (DE FORCRAND), 1892, A., 1185.

for rubidium (*c.*) (BEKETOFF), 1890, A., 679.

for salicylic acid (*c.*) (STOHMANN), 1885, A., 857; (BERTHELOT and RECOURA), 1887, A., 762.

for salts (*h.*) (PICKERING), 1884, A., 803; 1886, T., 417; P., 257; 1887, T., 75; (*f.*) (PICKERING), 1886, T., 287; P., 164; (POTILIZIN), 1886, A., 116; (VAN DEVENTER and REICHER), 1892, A., 262.

for selenides (*f.*) (FABRE), 1886, A., 961, 962.

for vitreous into metallic selenium (*t.*) (FABRE), 1886, A., 840.

for selenium chloride (*f.*) (THOMSEN), 1883, A., 543.

**Thermochemical data** for alkaline silicofluorides (*f.*) (TRUCHOT), 1884, A., 884.

for silicon tetrafluoride with ammonia (*cb.*) (TRUCHOT), 1885, A., 626.

for silver chloride (*f.*) (RICHARDS), 1888, A., 400.

for silver iodide and its compounds with cuprous and lead iodides (*t.*) BELLATI and ROMANESE, 1883, A., 274.

for sodammonium (*f.*) (JOANNIS), 1890, A., 319.

for sodium with methylic alcohol (*cb.*) (DE FORCRAND), 1885, A., 1031.

for sodium oxide (*f.*) (BEKETOFF), 1884, A., 1247.

for sorbic acid (*c.*) (OSSISOFF), 1889, A., 460.

for stannic acid and metastannic acid (*n.*) (VIGNON), 1889, A., 833.

for stilbene (*c.*) (OSSISOFF), 1889, A., 460.

for succinic acid (*n.*) (GAL and WERNER), 1887, A., 96.

for isosuccinic acid (*c.* and *f.*) (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1097; (*n.*) (MASSOL), 1892, A., 1140.

for alkaline succinates and isosuccinates (*f.*) (TANATAR), 1890, A., 320.

for sugars (*c.* and *f.*) (BERTHELOT and MATIGNON), 1890, A., 1360; (FOGH), 1892, A., 933.

for sulphates (*f.* and *t.*) (PICKERING), 1884, T., 686; 1886, T., 1; (*f.*) (DE FORCRAND), 1884, A., 4; (ILLINGWORTH and HOWARD), 1885, A., 339.

for sulphates and chlorides in aqueous solution, relation between (*f.*) (FAY) 1888, A., 401.

for alkaline sulphites (*f.* and *n.*) (BERTHELOT), 1883, A., 704.

for pyrosulphites (*f.*) (BERTHELOT), 1883, A., 705.

for sulphur compounds (*c.* and *f.*) (BERTHELOT and MATIGNON), 1890, A., 1361.

for sulphur chloride (*f.*) (THOMSEN), 1883, A., 543.

for sulphur oxychloride (*f.*) (THOMSEN), 1884, A., 250.

THERMOCHEMISTRY:—*Heat of formation*=*f.*; of *transformation*=*t.*; of *decomposition*=*d.*; of *dissociation*=*dis.*; of *combination*=*cb.*; of *combustion*=*c.*; of *neutralisation*=*n.*; of *substitution*=*sb.*; of *hydration*=*h.*

**Thermochemical data** for sulphuric acid (*n.*) (PICKERING), 1889, T., 323; P., 79.

for *persulphuric acid* and its salts (*f.* and *n.*) (BERTHELOT), 1892, A., 931.

for *pyrosulphuric chloride* (*f.*) (KONOWALOFF), 1884, A., 250.

for *sulphurous acid* (*n.*) (BERTHELOT), 1883, A., 704.

for *tartar emetic* (*f.*) (GUNTZ), 1887, A., 544.

for *d-* and *l-tartaric acids* (*c.*) (STOHMANN), 1885, A., 857; (*n.*) (GAL and WERNER), 1887, A., 96; (JAHN), 1891, A., 969.

for *tartronic acid* (*n.*) (GAL and WERNER), 1887, A., 96.

for *crystallised telluride* (*f.*) (FABRE), 1887, A., 1010.

for the *allotropic modification* of *tellurium* (*t.*) (BERTHELOT and FABRE), 1887, A., 761.

for *tellurium chloride* (*f.*) (THOMSEN), 1883, A., 543.

for *terebic acid* (*c.*) (OSSIPOFF), 1889, A., 460.

for *terephthalic acids* and their salts (*c.* and *f.*) (STOHMANN and KLEBER), 1891, A., 376, 1147.

for *terpilene*, *terpin hydrate* and *terpin* (*c.*) (LUGININ), 1889, A., 328.

for *tetric acid* (*n.*) (BERTHELOT), 1886, A., 8.

for *toluidines* (*f.*) (PETIT), 1888, A., 1239.

for *triisobutylene* (*c.*) (MALBOT), 1890, A., 320.

for *tricarballic acid* (*c.*) (LUGININ), 1889, A., 668.

for *potassium tricarballicates* (*f.*) (MASSOL), 1892, A., 762.

for *trimethylene* (*c.*) (BRÜHL), 1891, A., 633.

for *trimyristin* (*c.*) (STOHMANN), 1885, A., 857.

for *uric acid* (*c.*) (STOHMANN), 1885, A., 857; (*f.*) (MATIGNON), 1890, A., 1040.

for *alkaline urates* (*f.*) (MATIGNON), 1890, A., 1040.

for *cooked vegetables* (*c.*) (WILLIAMS), 1892, T., 240.

for *water-generator gas* and *carbonic anhydride-generator gas* (*c.*) (NAUMANN), 1892, A., 673.

**Thermochemical data** for the water molecule (*dis.*) (WIEDEMANN), 1883, A., 547.

for *wood* (*c.*) (GOTTLIEB), 1884, A., 477.

for *zinc carbonate* (*f.*) (DIEULAFAIT), 1886, A., 132.

for *zinc ethyl* (*f.*) (GUNTZ), 1888, A., 15.

**Heat of solution**, theory of (DIETERICI), 1892, A., 676, 765.

law of (OSTWALD), 1888, A., 1020.

variation of solubility with variations in (LE CHATELIER), 1887, A., 548; (CHANCEL and PARMENTIER), 1887, A., 632.

of the *alkaline earths* and the *alkalis* (THOMSEN), 1884, A., 250.

of *alkylamines* (COLSON), 1891, A., 377.

of *aluminium bromide* in *toluene* (GUSTAVSON), 1885, A., 472.

of *allantoin*, *alloxan* and *alloxantin* (MATIGNON), 1891, A., 1448.

of *amides* (BERTHELOT and FOGH), 1890, A., 1360.

of *aniline salts* (BERTHELOT), 1890, A., 1361.

of *aspartic acid* (BERTHELOT), 1891, A., 967.

of *acids* of the *benzene series* (BERTHELOT), 1886, A., 8.

of *certain compounds* of the *benzene series* (BERTHELOT), 1885, A., 1177.

of *bromine* in *different liquids* (PICKERING), 1888, T., 865; P., 92.

of  *dibromomalonic acid* and its salts (MASSOL), 1892, A., 1140.

of *calcium chloride* (PICKERING), 1888, P., 35; 1889, P., 86; 1891, P., 105.

of *cyano-* and *nitro-camphors* (BERTHELOT and PETIT), 1889, A., 1098.

of *carbon compounds* in *various alcohols* (TIMOFÉEFF), 1891, A., 1313.

of the *perchlorates* (BERTHELOT), 1883, A., 8.

of *chlorides* in *different liquids* (PICKERING), 1888, T., 865; P., 92.

of *hydrated metallic chlorides* (SABATIER), 1889, A., 1043.



## THERMOCHEMISTRY:—

- Heat of solution** of chromates (SABATIER), 1886, A., 962.  
 of colloids (WIEDEMANN and LUEDEKING), 1885, A., 1031.  
 of ethoxides (DE FORCRAND), 1884, A., 4, 142.  
 of ethylene oxide (BERTHELOT), 1883, A., 275.  
 of fluorine compounds (GUNTZ), 1884, A., 1245.  
 of hydrofluoric acid (GUNTZ), 1884, A., 544.  
 of fumaric acid (GAL and WERNER), 1887, A., 205.  
 of a gas (PAGLIANI), 1890, A., 846.  
 of gases in liquids (PICKERING), 1892, A., 1042.  
 of glutaric acid (MASSOL), 1892, A., 1141.  
 of glyceroxides (DE FORCRAND), 1887, A., 8; 1888, A., 642.  
 of *mono*- and *di*-sodium glycol (DE FORCRAND), 1888, A., 1238; 1892, A., 421.  
 of glycollic acid and its salts (DE FORCRAND), 1883, A., 644, 774; (TOMMASI), 1883, A., 775.  
 of glyoxylic acid and its salts (DE FORCRAND), 1886, A., 297.  
 of guanidine and nitroguanidine (MATIGNON), 1892, A., 1142.  
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**Thiazylacetic acid**,  $\mu$ -amido- (STEUDE), 1891, A., 743.

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- Thienyl** (MEYER), 1884, A., 586.
- $\beta$ -Thienyl alcohol and chloride** (BIEDERMANN), 1886, A., 536.
- Thienyl hexyl ketone and ketoxime** (SCHLEICHER), 1886, A., 539.
- Thienyl mercaptan and its derivatives** (BIEDERMANN), 1886, A., 788; (MEYER and NEURE), 1887, A., 805.
- Thienyl methyl ketone**. See Aceto-thienone.
- Thienyl methyl thioether**. See Thio-methoxythiophen.
- Thienyl phenyl ketone**. See Phenyl thienyl ketone.
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- Thienyl styryl ketone** (BRUNSWIG), 1887, A., 237.
- Thienyl disulphide** (MEYER and NEURE), 1887, A., 805.
- Thienyl *o*-tolyl ketone** (ERNST), 1887, A., 238.
- Thienylacetic acid** (ERNST), 1887, A., 238.  
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- Thienylacrylic acid** (BIEDERMANN), 1886, A., 871.
- Thienyl-2:5-dimethylglyoxylic acid** (RUFF), 1887, A., 805.
- Thienyldiphenylmethane** (LEVI), 1886, A., 787.
- Thienylethylamine** (GOLDSCHMIDT and SCHULTHESS), 1887, A., 718.
- Thienylglycollic acid** (ERNST), 1887, A., 238.
- $\alpha$ -Thienylglyoxylic acid** (PETER), 1885, A., 764; (BRADLEY), 1886, A., 1014.  
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- Thienylisooxazolic acid** (SALVATORI), 1892, A., 304.
- 5:1-Thienylphenyl-pyrazole and -pyrazolic acid** (SALVATORI), 1892, A., 303.
- Thinolite of Lake Lahontan**, crystallographic study of (DANA), 1886, A., 515.
- Thioacetaldehyde** (MARCKWALD), 1886, A., 864.  
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- tri*Thioacetaldehyde** (MARCKWALD), 1886, A., 865; 1888, A., 127; (BAUMANN and FROMM), 1890, A., 25; 1891, A., 1008, 1010; (BAUMANN), 1890, A., 477.
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- Thioacetanilide** (JACOBSON), 1886, A., 700.
- Thioacetic acid**, action of, on ethylic thiocyanate (CHANLAROFF), 1883, A., 39.  
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- Thioacetic anhydride** (DAVIES), 1892, A., 300, 581.
- Thioaceto- $\psi$ -cumidide** (JACOBSON and NEY), 1889, A., 771.
- Thio- $\beta$ -acetonaphthalide** (JACOBSON), 1888, A., 1307.
- Thioacetone** (BAUMANN and FROMM), 1890, A., 26.
- di*Thioacetonediacetic acid** (*isopropylidenebisthioglycollic acid*) (BONGARTZ), 1886, A., 938.
- tri*Thioacetone-*di*- and -*tri*-sulphones** (*triisopropylidenetrisulphone*) (BAUMANN and FROMM), 1890, A., 26.
- di*Thioacetophenonediacetic acid** (*phenylethylidenebisthioglycollic acid*) (BONGARTZ), 1886, A., 938.
- Thioaceto-*m*-xylidide** (GUDEMAN), 1888, A., 1282; (JACOBSON and NEY), 1889, A., 771.
- Thioacetylquinol** (LEUCKART), 1890, A., 604.
- Thioaldehydes** (BAUMANN and FROMM), 1890, A., 25; 1891, A., 1008; (BAUMANN), 1890, A., 477; (BAUMANN and CAMPS), 1890, A., 478.  
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- Thioallylbenzene** (*thiophenylpropylene*; *phenyl allyl sulphide*) (ESCALES and BAUMANN), 1886, A., 879.
- $\alpha$ -Thioallylbenzene** (*phenyl  $\alpha$ -allyl sulphide*) (AUTENRIETH), 1890, A., 362.
- Thioameline and its salts** (KLASON), 1886, A., 523; (RATHKE), 1887, A., 650.  
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- Thioanhydro-compounds**, formation of (JACOBSON and FRANKENBACHER), 1891, A., 1048.
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- Thioanisylthiocarbamides**, *mono*- and *di*-. (v. HOFMANN), 1887, A., 823.



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- Thiobenzaldehydes**,  $\alpha$ -,  $\beta$ -, and  $\gamma$ - (BAUMANN and FROMM), 1890, A., 25; 1891, A., 1050; (BARBAGLIA and MARQUARDT), 1891, A., 1049.
- di*Thiobenzaldehydediacetic acid** (*benzylidenecbisthioglycollic acid*) (BONGARTZ), 1886, A., 478, 937.
- Thiobenzaldine** (BAUMANN and FROMM), 1891, A., 1050.
- Thiobenzamide**, action of iodine on (V. HOFMANN and GABRIEL), 1892, A., 1109.
- $\alpha$ -Thiobenzoic acid**, arsenic and mercury salts of (RAYMAN), 1887, A., 950.
- Thiobenzophenone** (BERGREEN), 1888, A., 445.
- di*Thiobenzophenonediacetic acid** (*diphenylmethylencbisthioglycollic acid*) (BONGARTZ), 1886, A., 479, 938.
- Thiobenzo-*o*-toluidide** (STIEGLITZ), 1890, A., 256.
- Thiobenzo-*p*-toluidide** (MÜLLER), 1890, A., 43.
- Thiobenzo-xylidide** (GUDEMAN), 1888, A., 1282.
- 4-Thiobis-1-phenyl-3-methylpyrazolone** (V. BUCHKA and SPRAGUE), 1890, A., 796; (MICHAELIS), 1890, A., 1269; (SPRAGUE), 1891, T., 332, 335.
- Thiobiuret** (HECHT), 1892, A., 703.
- Thioisobutaldehyde** (BARBAGLIA), 1889, A., 120.
- Thiocarbamates**, reactions of (MARCHESENI), 1892, A., 1318.
- di*Thiocarbamates**, aromatic (LOSANITSCH), 1892, A., 55.
- Thiocarbamic chloride** (KLASON), 1887, A., 1025.
- tetra*Thiocarbamidammonium bromide**, chloride, and iodide (REYNOLDS), 1891, A., 384.
- Thiocarbamidazobenzene** (BERJU), 1884, A., 1149; 1885, A., 660.
- Thiocarbamide**, constitution of (REYNOLDS), 1891, T., 394; P., 78; (STORCH), 1891, A., 548. non-nitrifiability of (MUNRO), 1886, T., 639. action of alcoholic potash on (HALLER), 1886, A., 691.
- Thiocarbamide**, action of allylic bromide, and of benzylic chloride on (WERNER), 1890, T., 284, 299; P., 33. action of excess of bromine on (MCGOWAN), 1887, T., 378. action of *di*bromobarbituric acid on (TRZCIŃSKI), 1883, A., 913. action of cyanides on (MCGOWAN), 1887, T., 380. action of ethylenic bromide on (BERTRAM), 1892, A., 466. action of ethylic acetoacetate on (LIST), 1886, A., 443. action of mercury fulminate on (SCHOLVIEN), 1886, A., 137. action of silicon *tetra*bromide on (REYNOLDS), 1887, T., 202. conversion of, into carbamide (MALY), 1890, A., 1399. bases obtained by the action of halogen compounds on, oxidation of (ANDREASCH), 1883, A., 664. additive compounds of (REYNOLDS), 1891, T., 383; P., 78. compounds of, with ammonium haloid salts (REYNOLDS), 1891, T., 384. compounds of, with metallic salts (RATHKE), 1884, A., 1017. sulphinic compounds of (MCGOWAN), 1887, T., 666; P., 101. benzyl derivatives of (DIXON), 1891, T., 551; P., 84. dihaloid derivatives of (MCGOWAN), 1886, T., 190; P., 143; 1887, T., 378; P., 36. methylene derivatives of (V. HEMMELMAYR), 1891, A., 1339. methyl- and ethyl-ammonium salts of (REYNOLDS), 1891, T., 391. See also Thiourea.
- Thiocarbamides** (SALKOWSKI), 1891, A., 1474; (HECHT), 1892, A., 702. chemistry of (WERNER), 1890, T., 283; P., 33. tautomerism of (FOERSTER), 1888, A., 944. action of chloracetone and bromacetophenone on (SPICA and CARRARA), 1892, A., 216. action of dibasic acids on (MOINE), 1887, A., 489. action of ammonia and amines on (GEBHARDT), 1885, A., 387. action of benzyloxyamine and ethoxyamine on (VOLTMER), 1891, A., 558. action of hydroxyamine on (TIE-MANN), 1889, A., 1165; (VOLT-MER), 1890, A., 1126; 1891, A., 558.

- Thiocarbamides**, desulphurisation of, by mercuric cyanide (HEFFELMANN), 1886, A., 349.  
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- Thiocarbimides**, additive products of aromatic diamines and (LELLMANN and WÜRTNER), 1885, A., 977.  
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- ψ-Thiocyanogen**, properties of (HECTOR), 1892, A., 292.
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- αβ-diThiocyanoisopropylamine** and its derivatives (TCHERNIAC and NORTON), 1884, A., 664.
- β-Thiocyanopropylphthalimide** (SEITZ), 1891, A., 1473.
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- diThiodiacetylbenzaldehyde** (*diacetyl-dithiobenzorthaldehyde*) (BONGARTZ), 1886, A., 938.
- Thiodiacetylquinol** (*diacetylthioquinol*) (LEUCKART), 1890, A., 604.
- Thiodialuric acid** (TRZCIŃSKI), 1883, A., 914.
- γ-diThiodibutyramide** (GABRIEL), 1890, A., 1221.
- α-Thiodibutyric acid** (LOVÉN), 1886, A., 333.
- Thiodibutyric acids**, *γ-mono-* and *γ-di-* (GABRIEL), 1890, A., 1221.
- Thiodiisobutyric acid** (*thio-octoic acid*) (LOVÉN), 1886, A., 333.
- γ-Thiodibutyronitrile** (GABRIEL), 1890, A., 1221.
- diThiodicinnamic acid** (BONDZYŃSKI), 1887, A., 1109.
- Thiodiethylaniline** (HOLZMANN), 1888, A., 1080; (MICHAELIS and GODCHAUX), 1890, A., 611.
- diThiodiethylaniline** (HOLZMANN), 1887, A., 723.



- Thiodiglycol compounds** (MEYER), 1887, A., 228.
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- Thiodilactylic acids**,  $\alpha$ - and  $\beta$ -mono- and di- (LOVÉN), 1884, A., 1298.
- diThiodi- $\omega$ -methoxytoluene** (BONGARTZ), 1888, A., 479.
- Thiodimethylaniline** (HOLZMANN), 1887, A., 723; (MICHAELIS and GODCHAUX), 1890, A., 610.  
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- diThiodimethylaniline** (MERZ and WEITH), 1886, A., 792.
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- Thiodi- $\beta$ -naphthylamine** (RIS), 1886, A., 1036; (KYM), 1889, A., 51.
- diThiodinaphthylamines**, two isomeric (KYM), 1889, A., 51.
- Thiodi- $\beta$ -naphthylcarbamic chloride** (PASCHKOWETZKY), 1892, A., 165.
- as-Thiodi- $\beta$ -naphthylcarbamide** (PASCHKOWETZKY), 1892, A., 165.
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- Thio- $\beta$ -dinaphthylmethylamine** (KYM), 1890, A., 1306.
- Thio- $\beta$ -dinaphthylphenylcarbamide** (PASCHKOWETZKY), 1892, A., 166.
- diThiodiphenoxydilactylic acid** and its salts (BAUMANN), 1885, A., 515.
- diThiodiphenoxydimethylmethane** (*di-thiodiphenoxypropane*) (BAUMANN), 1887, A., 126.
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- diThiodiphenylamine** (HOLZMANN), 1888, A., 1080.
- Thiodiphenylcarbamic acid**, derivatives of (FRAENKEL), 1885, A., 1130.
- Thiodiphenylcarbamic chloride** (PASCHKOWETZKY), 1892, A., 164.
- as-Thiodiphenylcarbamide** (PASCHKOWETZKY), 1892, A., 164.
- Thiodiphenylmethylamine** (HOLZMANN), 1888, A., 1080.
- Thiodiisovaleric acid** (LOVÉN), 1886, A., 333.
- Thioeosin** (GRAEBE and ZSCHOKKE), 1884, A., 1025.
- Thioethoxyacetal** (AUTENRIETH), 1891, A., 541.
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- Thioethoxyacetone-diphenylmercaptole and -ethylmercaptole** (AUTENRIETH), 1891, A., 567.
- Thioethylamine** and its derivatives (GABRIEL), 1891, A., 816; 1892, A., 130.
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- Thio- $\alpha$ -ethylcoumarin** (ALDRINGEN), 1890, A., 624.
- Thioethylquinol** (LEUCKART), 1890, A., 604.
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- Thiohydracrylic acid** (LOVÉN), 1884, A., 1299.
- diThio-*o*-hydroxybenzaldehydeacetic acid** (BONGARTZ), 1886, A., 937.
- Thiohydroxydiphenylamine** (BERNTHSEN), 1885, A., 260; 1886, A., 55.
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- Thiomethoxythiophen** (*methothiothiophen*) (MEYER and NEURE), 1887, A., 805.
- Thiomethylaniline** (MICHAELIS and GODCHAUX), 1891, A., 75.
- diThiomethylbenzylidene**. See *diThio-di- $\omega$ -methoxytoluene*.
- Thio- $\alpha$ -methylcoumarin** (ALDRINGEN), 1890, A., 624.
- Thio-2'-methylquinoline** (*sulphydro-2'-methylquinoline*) (ROOS), 1888, A., 500; (CONRAD and LIMPACH), 1888, A., 1109.
- 2'-Thio-4'-methylquinoline** (*2'-sulphydro-4'-methylquinoline*) (ROOS), 1888, A., 500.
- Thiomethyluracil and -uracilacetic acid** (LIST), 1887, A., 128.
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- 2:2'-diThio- $\beta$ -naphthol** (GROSJEAN), 1890, A., 1306.
- Thionessal** (*tetraphenylthiophen; thiolepiden*) (ZIEGLER), 1890, A., 1246; (BAUMANN and KLETT), 1892, A., 185.  
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- Thionylaniline** (MICHAELIS and HERZ), 1891, A., 310; (MICHAELIS), 1891, A., 715.
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- Thionyl- $\alpha$ -naphthylhydrazones** (MICHAELIS and RUHL), 1892, A., 1324.
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- Thionylphenylethylhydrazone** (MICHAELIS), 1889, A., 1163.
- Thionylphenylhydrazine** (MICHAELIS), 1889, A., 1163; 1891, A., 717; (MICHAELIS and RUHL), 1890, A., 617.
- Thionylphenylmethylhydrazine** (MICHAELIS and RUHL), 1892, A., 1324.
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- Thionyl-*o*-toluidine** (MICHAELIS), 1891, A., 717.
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- Thionyl-*p*-tolylhydrazone** (MICHAELIS and RUHL), 1890, A., 617; 1892, A., 1324.
- Thio-octoic acid** (*thiodiisobutyric acid*) (LOVÉN), 1886, A., 333.
- $\gamma$ -Thio-octonitrile** (GABRIEL), 1890, A., 1221.
- tetraThiopentone** (FROMM and BAUMANN), 1889, A., 852.
- diThiopersulphuric acid** (VILLIERS), 1888, A., 650.
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- Thiophencarboxylic acid** (*thiophenic acid*), bromo-, and iodo- (GATTERMANN and RÖMER), 1886, A., 537. nitro- (RÖMER), 1887, A., 362.
- $\alpha$ -Thiophencarboxylic acid** and its derivatives (NAHNSEN), 1885, A., 51; (PETER), 1885, A., 765; (MEYER), 1885, A., 1051; 1886, A., 534. from mucic acid (PAAL and TAFEL), 1885, A., 764. heats of combustion and formation of (STOHMANN and KLEBER), 1891, A., 376. bromination of (BONZ), 1885, A., 1206; (MEYER), 1885, A., 1207. reduction of (ERNST), 1887, A., 471.
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- Thiophenchlorophosphine** and its derivatives (SACHS), 1892, A., 966.
- Thiophen-2:3-dicarboxylic acid** (GRÜNEWALD), 1888, A., 49; (GERLACH), 1892, A., 830. bromo- (GERLACH), 1892, A., 831.
- Thiophen-2:4-dicarboxylic acid** (ZELINSKY), 1887, A., 921.
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- Thiophendisulphonic acid** and its salts (JAEKEL), 1886, A., 339, 613.
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- Thiophenic acids.** See Thiophencarboxylic acids.
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- Thiophenoxyacetone** (*acetonylphenylic sulphide*) (DELISLE), 1889, A., 489; (AUTENRIETH), 1891, A., 541.
- Thiophenoxyacetonedithylmercaptole** (AUTENRIETH), 1891, A., 568.
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- Thio-*o*-phenoxybenzoic acid** (ZIEGLER), 1890, A., 1292; (GRAEBE and SCHULTESS), 1891, A., 1058.
- Thiophenoxychlorophosphine** (SACHS), 1892, A., 966.
- $\alpha$ -Thiophenoxyisocrotonic acid** (AUTENRIETH), 1890, A., 362.
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- $\alpha$ -Thiophenuric acid** (JAFFÉ and LEVY), 1889, A., 239.
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- Thio- $\alpha$ -isopropylcoumarin** (ALDRINGEN), 1890, A., 624.
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- $\alpha$ -Thioquinoline** (*sulphydroquinoline*) (ROOS), 1888, A., 500.
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- Thioterephthalamide** (LUCKENBACH), 1884, A., 1158.
- Thiotetrahydroquinazoline** (*thiodihydroquinazolone*) (BUSCH), 1892, A., 1496.
- di***Thiotetra- $\beta$ -naphthylcarbamide** (PASCHKOWETZKY), 1892, A., 166.
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- Thio- $p$ -toluidine** and its derivatives (TRUHLAR), 1887, A., 472.
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- tri***Thiotriacetone** and its *pentoxide* (FROMM and BAUMANN), 1889, A., 852.
- tri***Thio- $o$ -triisobutoxytribenzaldehyde** (*triisobutoxytrithiotribenzaldehyde*) (BAUMANN and FROMM), 1891, A., 1051.
- $\alpha$ -*tri***Thiotricinnamaldehyde** (BAUMANN and FROMM), 1891, A., 1051.
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separation of, from iron (GOOCH), 1885, A., 1265; 1886, A., 492; (CLASSEN), 1888, A., 532.

separation of, from niobium and zirconium (DEMARÇAY), 1885, A., 639.

separation of, from tin (HILGER and HAAS), 1890, A., 666; (HAAS), 1890, A., 1029.

**Titanium minerals, distribution of** (THÜRACH), 1886, A., 126.

decomposition of (JONES), 1892, A., 664.

**Tobacco**, influence of the ash constituents on the combustibility of (MAYER), 1890, A., 1458.

slow combustion of (SCHLÆSING), 1888, A., 979; 1889, A., 639.

ratio of starch to sugar in (MÜLLER), 1886, A., 904.

wax from (KISSLING), 1884, A., 173.

climatic conditions for the development of nicotine in (MAYER), 1891, A., 858.

estimation of nicotine in (BIEL), 1888, A., 876; (KISSLING), 1890, A., 430.

composition of "smalls" of (BROWN), 1889, A., 543.

Japanese (TAKAYAMA), 1885, A., 582; (FESCA and IMAI), 1889, A., 69.

Virginian, composition of the midribs of leaves of (MEMMINGER), 1884, A., 99.

(*Toluene compounds*  $Me=1$ .)

**Tobacco**. See also *Agricultural Chemistry*.

**Tobacco ash**, composition of (ROMANIS), 1883, A., 372; (ANON.), 1885, A., 927; (JORDAN; JENKINS), 1886, A., 177; (VAN BEMMELEN), 1890, A., 1338.

**Tobacco smoke**, toxic action of, on bacteria (TASSINARI), 1888, A., 1327.

wax-like body from (KISSLING), 1884, A., 173.

**Tolallyl sulphide** (BAUMANN and KLETT), 1892, A., 185.

**Tolane**. See *Diphenylacetylene*.

**Tolazedicarboxylic acid**, diamido- (KEHRMANN), 1889, A., 1154.

*p*-**Tolenylamidine derivatives** (GLOCK), 1888, A., 1290.

hydrochloride (CRAYEN), 1891, A., 560.

nitrite (LOSSEN), 1892, A., 53.

**Tolenylamidinebenzenyl-o-carboxylic acid** (BISTRZYCKI), 1890, A., 969.

**Tolenylamidinedimethoxybenzenyl-carboxylic acid** (BISTRZYCKI), 1891, A., 746.

*p*-**Tolenylamidine-p-tolenylazosulphimecarbohydrosulphide** (CRAYEN), 1891, A., 560.

*p*-**Tolenylamididosulphime-p-tolenylsulphimedithiocarbamate** (CRAYEN), 1891, A., 560.

*o*-**Tolenylamidoxime** and its derivatives (SCHUBART), 1890, A., 49.

*p*-**Tolenylamidoxime** and its derivatives (SCHUBART), 1886, A., 797; 1890, A., 47.

action of carbon disulphide on (CRAYEN), 1891, A., 559.

potassium compound of, action of carbon disulphide on (SCHUBART), 1890, A., 49.

3-nitro- (WEISE), 1890, A., 47.

*p*-**Tolenylamidoxime-ethylidene** (SCHUBART), 1890, A., 48.

**Tolenylazo-**. See *Azo-*.

*p*-**Tolenylethoxime salts** (SCHUBART), 1890, A., 47.

*p*-**Tolenyl-imidoacetate and -imidoethyl ether** (GLOCK), 1888, A., 1289.

*o*-**Tolenylimidoximeamido-o-tolylidene** (STIEGLITZ), 1890, A., 255.

*p*-**Tolenylimidoximecarbonyl** (SCHUBART), 1890, A., 48.

*p*-**Tolenyl-phenyluramidoxime, -thio-uramidoxime and -uramidoxime** (SCHUBART), 1890, A., 48.

*p*-**Tolhydryl-amine** (*di-p-tolylcarbinyll-amine*) and *-carbamide* (GOLDSCHMIDT and STÖCKER), 1891, A., 1479.



(*Toluene compounds Me=1.*)

**Tolidine** (*diamidoditolyl*), polymethylene bases from (SCHIFF), 1892, A., 1223.

*o*-**Tolidine**, action of nitrous acid on (SCHULTZ), 1884, A., 903.  
derivatives of (HOBBS), 1888, A., 708.

acetyl-derivatives of (GERBER), 1888, A., 484.

*m*-amido-, and *m*-nitro- (LOEWENHERZ), 1892, A., 852.

dinitro- (GERBER), 1888, A., 484.

*o-m*-**Tolidine** (SCHULTZ), 1884, A., 903.

*m*-**Tolidine**, preparation of (v. BUCHKA and SCHACHTEBECK), 1889, A., 701.

*p*-**Tolidine**, action of nascent nitrous acid on (DENINGER), 1890, A., 38.

**Tolidinedisulphonamide** (HELLE), 1892, A., 1468.

*o*-**Tolidinedisulphonic acid** (GRIESS and DUISBERG), 1890, A., 60; (HELLE), 1892, A., 1466.

**Tolidinesulphone** (GRIESS and DUISBERG), 1890, A., 60.

**Tolidinesulphonic acid** (HELLE), 1892, A., 1467.

*o*-**Tolidinesulphonic acid** (GRIESS and DUISBERG), 1890, A., 60.

*p*-**Tolil** (*di-p-tolyl diketone*) (STIERLIN), 1889, A., 513.

**Tolilbenzil**, *o*- and *p*- (*benzil, tolylimide of; phenyl tolylimidobenzyl ketone*) (BANDROWSKI), 1889, A., 147.

*o*-**Tolilbenzoin** (*tolylimidodiphenylethyl alcohol*) (BANDROWSKI), 1889, A., 147.

*p*-**Tolilbenzoin** (VOIGT), 1886, A., 888.

**Tolindole**. See 3-Methylindole.

**Toloctylamine** (*octyltolylamine; tolyloctane, amido-*), and its derivatives (BERAN), 1885, A., 524.

*m*-**Tolualdehyde**, *o*-nitro-, and dinitro- (BORNEMANN), 1884, A., 1163.

**Tolualdehydes** and their derivatives (BORNEMANN), 1884, A., 1161.

*m*-**Tolualdehydephenylhydrazone** (RUDOLPH), 1889, A., 251.

**Tolualloxazine** (KÜHLING), 1891, A., 1342.

*α*-**Toluamide** (PURGOTTI), 1891, A., 59.

*o*-**Toluamide**, reduction of (HUTCHINSON), 1890, T., 957.

3:5-dibromo- (CLAUS and BECK), 1892, A., 1207.

*m*-**Toluamide**, *ω*-chloro- (REINGLASS), 1891, A., 1344.

*p*-**Toluamide**, 3-amido- (NIEMENTOWSKI), 1888, A., 837.

2:6-dibromo- (CLAUS and SEIBERT), 1892, A., 176.

(*Toluene compounds Me=1.*)

*p*-**Toluamide**, 3:5-dibromo- (CLAUS and HERBABNY), 1892, A., 175.

3:5-bromonitro- (CLAUS and HERBABNY), 1892, A., 175.

2- and 3-chloro- (CLAUS and DAVIDSEN), 1889, A., 988.

*ω*-chloro-, and *ω*-cyano- (MELLINGHOFF), 1890, A., 239.

3-nitro- (NIEMENTOWSKI and ROZANSKI), 1888, A., 1088; (WEISE), 1890, A., 47.

*p*-**Toluanilide** (LEUCKART), 1890, A., 759.

**Toluzophenine** (FISCHER and HEPP), 1891, A., 1046.

*p*-**Tolubenzylacetamide** (*tolylcarbinyllacetamide; methylbenzylacetamide*) (KRÖBER), 1890, A., 969.

*o*-**Tolubenzylamine**. See Methylbenzylamine.

*p*-**Tolubenzylcarbamide** (*tolylcarbinyllcarbamide; methylbenzylcarbamide*) (KRÖBER), 1890, A., 969.

*o*-**Toluisobutylthiocarbamide** (*diisobutyliditolylthiocarbamide*) (EFFRONT), 1885, A., 153, 154.

**Tolucarbostyryl**. See Methylcarbostyryl.

**Toluene** (*methylbenzene*), coal-tar (MEYER), 1883, A., 1092.

formation of, from benzylic bromide (GLADSTONE and TRIBE), 1885, T., 453.

dispersive power of (BARBIER and ROUX), 1889, A., 805.

refractive power of, at different temperatures (PERKIN), 1892, T., 297.

action of the induction spark on (DESTREM), 1884, A., 1243.

action of heat on, and on a mixture of ethylene and (FERKO), 1887, A., 572.

action of amyl chloride and amylenene on (ESSNER and GOSSIN), 1885, A., 517.

action of chloropicrin and chloroform on, in presence of aluminium chloride (ELBS and WITICH), 1885, A., 517.

action of ethylic diazoacetate on (BUCHNER and CURTIUS), 1885, A., 1208.

action of lead oxide on (VINCENT), 1890, A., 962.

action of methylenic chloride on, in presence of aluminium chloride (FRIEDEL and CRAFTS), 1884, A., 1312; 1887, A., 1102.

bromination of (MILLER), 1892, T., 1023.

(*Toluene compounds Me=1.*)

**Toluene** (*methylbenzene*), chlorination of (SEELIG), 1887, A., 362.

purest, of commerce, sulphur compound in (MEYER and KREIS), 1884, A., 46.

halogen derivatives of (WILLGERODT and SALZMANN), 1889, A., 985.

physical constants of (SEUBERT), 1890, A., 2.

*tetra-* and *hexa-*hydrides from resin essences (RENARD), 1884, A., 844.

**Toluene**, amido-. See Toluidine.

*diamido-*. See Tolylenediamine.

*c-tetramido-*, and its sulphate (NIETZKI and ROSER), 1891, A., 192.

*pentamido-* (PALMER), 1889, A., 390.

*o-bromo-*, preparation and properties of (MILLER), 1892, T., 1027; P., 155.

action of chromyl dichloride on (STUART and ELLIOTT), 1888, T., 803.

bromination of (MILLER), 1892, T., 1031; P., 155.

oxidation of, with potassium ferricyanide (NOYES), 1886, A., 142.

*m-bromo-*, oxidation of (NOYES and WALKER), 1886, A., 788.

*p-bromo-*, preparation and properties of (MILLER), 1892, T., 1026; P., 155.

melting point of (NERNST), 1890, A., 3.

action of chlorine on (SRPEK), 1891, A., 44; (ERRERA), 1891, A., 1020.

bromination of (MILLER), 1892, T., 1032; P., 155.

3:6-bromonitro- (BENTLEY and WARREN), 1890, A., 485.

2:5:4:6-dibromodinitro- (CLAUS), 1888, A., 583.

3:5-dibromotritro- (PALMER), 1889, A., 390.

*o-chloro-* (SEELIG), 1887, A., 362.

action of chromyl dichloride on (STUART and ELLIOTT), 1888, T., 803.

sulphonation of (WYNNE), 1892, T., 1072; P., 140.

*m-chloro-*, sulphonation of (WYNNE), 1892, T., 1075; P., 140.

*p-chloro-*, melting point of (NERNST), 1890, A., 3.

sulphonation of (WYNNE), 1892, T., 1078; P., 140.

2:3- and 2:4-dichloro- (SEELIG), 1887, A., 363.

2:4-dichloro-, preparation of (ERDMANN), 1891, A., 1462.

(*Toluene compounds Me=1.*)

**Toluene**, 2:5-dichloro- (WYNNE), 1892, T., 1050; P., 139.

3:4-dichloro-, preparation of (ERDMANN), 1891, A., 1462.

sulphonation of (WYNNE), 1892, T., 1060; P., 139.

2:4-, 2:5-, 3:4- and 3:5-dichloro- (LELLMANN and KLOTZ), 1886, A., 452.

2:3:4- and 2:4:5-trichloro- (SEELIG), 1885, A., 769.

3:4:5-trichloro- (WYNNE), 1892, T., 1070; P., 139.

*pentachloro-* (SEELIG), 1885, A., 770.

*o-chlorodibromo-*, and *di-*, *tri-* and *tetra-chloro-p-bromo-* (WILLGERODT and SALZMANN), 1889, A., 986.

2:4-chloronitro- (LELLMANN), 1884, A., 1133.

2:5-chloronitro- (GOLDSCHMIDT and HÖNIG), 1887, A., 363; (HÖNIG), 1887, A., 1034.

2:6-chloronitro- (GREEN and LAWSON), 1891, T., 1017; P., 129.

3:5-chloronitro- (HÖNIG), 1887, A., 1034.

4:2-chloronitro- (GOLDSCHMIDT and HÖNIG), 1886, A., 1022.

4:3-chloronitro-, and its reduction products (GATTERMANN and KAISER), 1886, A., 49.

4:2:3-, 4:2:6- and 4:3:5-chlorodinitro- (HÖNIG), 1887, A., 1034.

2:4-dichloronitro- (SEELIG), 1887, A., 363.

2:3:4- and 2:4:5-trichloronitro- (SEELIG), 1885, A., 769.

cyano-. See Toluonitrile.

*p-fluoro-* (PATERNO and OLIVERI), 1884, A., 426; (WALLACH), 1887, A., 130.

*o-iodo-*, action of chromyl dichloride on (STUART and ELLIOTT), 1888, T., 803.

$\omega$ -nitro- (GABRIEL), 1885, A., 903; (GABRIEL and KOPPE), 1886, A., 693.

*o-nitro-* (STRENG), 1891, A., 1197.

action of chlorine on, in presence of sulphur (HAEUSSERMANN and BECK), 1892, A., 1437.

action of chromyl dichloride on (v. RICHTER), 1886, A., 694.

oxidation of, by potassium ferricyanide (NOYES), 1883, A., 577.

fractional reduction of (MINIATI, BOOTH and COHEN), 1888, A., 202.

(*Toluene compounds Me=1.*)

- Toluene**, *m*-nitro-, preparation of (V. BUCHKA), 1889, A., 696.  
 oxidation of (NOYES and MOSES), 1886, A., 143.  
 reduction products of (V. BUCHKA and SCHACHTEBECK), 1889, A., 701.  
*p*-nitro-, action of chromyl dichloride on (V. RICHTER), 1886, A., 694.  
 oxidation of, by potassium ferricyanide (NOYES), 1883, A., 577.  
 fractional reduction of (MINIATI, BOOTH and COHEN), 1888, A., 202.  
 estimation of (REVERDIN and DE LA HARPE), 1889, A., 84.  
 2:4-dinitro-, liquid bye-product in the preparation of (NÖLTING and WITT), 1885, A., 1095.  
 2:5-dinitro- (NIETZKI and GUTERMANN), 1888, A., 471.  
 2:6-dinitro- (CLAUS and BECKER), 1883, A., 1093; (STAEDL), 1885, A., 142.  
 3:5-dinitro-, constitution of (STAEDL), 1883, A., 865.  
 preparation of (STAEDL), 1883, A., 864, 865.  
 2:4:6-trinitro- (CLAUS and BECKER), 1883, A., 1093.  
 $\alpha$ -,  $\beta$ - and  $\gamma$ -trinitro- (HEPP), 1883, A., 317.  
 compounds of, with hydrocarbons (HEPP), 1883, A., 318.  
 2:5-dinitroso- (MEHNE), 1888, A., 463; (NIETZKI and GUTERMANN), 1888, A., 471.  
**Toluene-aniline**, *a*-trinitro- (HEPP), 1883, A., 317.  
**Tolueneazimidotoluene** (ZINCKE and LAWSON), 1887, A., 731.  
**Tolueneazo-**. See Azo-.  
**Toluenecinnamene** (WISPER and ZUBER), 1883, A., 977; (KRAEMER, SPILKER and EBERHARDT), 1891, A., 207.  
**Toluenecyano-sulphochloride**, and -sulphonic acid (ANON.), 1890, A., 382.  
**Toluenedicarboxylic acid**. See Methylphthalic acid.  
**Toluene-3:5-disulphonic acid**, 2-bromo- (KORNATZKI), 1884, A., 70; (LIMPRICHT), 1885, A., 1233; (HASSE), 1886, A., 151.  
*p*-iodo- (LIMPRICHT), 1885, A., 1233; (RICHTER), 1886, A., 152.  
**Toluene-2:6-disulphonic acid** (KORNATZKI), 1884, A., 70.  
**Toluenedisulphonic acids** (KLASON), 1887, A., 264, 491.

(*Toluene compounds Me=1.*)

- Toluenedisulphonic acids**, *p*-bromo-, and their derivatives (KORNATZKI), 1884, A., 70; (RICHTER), 1886, A., 152.  
**Toluenedisulphothiosulphonic anhydride**. See Sulphotolylic disulphide.  
*p*-**Toluenehydrazo-*p*-cresol** (GOLDSCHMIDT and POLLAK), 1892, A., 974.  
*m*-**Toluene- $\beta$ -methylcoumarin** (V. PECHMANN and DUISBERG), 1884, A., 67.  
**Toluenenaphthalenes**, *di*- and *tri*-nitro- (HEPP), 1883, A., 318.  
**Toluenesulphamine** (PAYSAN), 1884, A., 454; (HEFFTER), 1884, A., 455.  
**Toluenesulphinic acids** (PERL), 1885, A., 391.  
**Toluenesulphonamic acid** (TRAUBE), 1890, A., 1137.  
**Toluene-*o*-sulphonamide**, 4-chloro- (HEFFTER), 1884, A., 73.  
**Toluene-*m*-sulphonamide** (NOYES and WALKER), 1886, A., 788.  
**Toluene-*p*-sulphonamide**, oxidation of, with potassium ferricyanide (NOYES), 1886, A., 142.  
**Toluenesulphonic acid**, 3-chloro-, and its amide and chloride (WYNNE), 1892, T., 1075.  
 2:5-dichloro-, and its metallic salts and amide and chloride (WYNNE), 1892, T., 1051; P., 139.  
 3:4-dichloro-, and its amide and chloride (WYNNE), 1892, T., 1061; P., 139.  
 hydrolysis of (WYNNE), 1892, T., 1068; P., 139.  
 3:4:5-trichloro-, and its metallic salts and chloride (WYNNE), 1892, T., 1069; P., 139.  
*o*-iodo- and its salts (MABERY and PALMER), 1885, A., 538.  
**Toluene-*m*-sulphonic acid** and its derivatives (VALLIN), 1887, A., 263.  
**Toluene-*p*-sulphonic acid** and its derivatives (VALLIN), 1887, A., 263.  
 action of bromine on (MILLER), 1886, P., 235.  
 amine salts of (NORTON and OTTEN), 1888, A., 698.  
 barium salt of (KELBE), 1883, A., 807.  
 potassium salt of, bromination of (MILLER), 1892, T., 1027; P., 155.  
 2-bromo- (MILLER), 1892, T., 1027; P., 155.  
 2:3:5-tribromo- (CLAUS and IMMEL), 1891, A., 1490.  
**Toluene-2-sulphonic acid**, 4-bromo-, and its salts (DE ROODE), 1891, A., 1227.



(*Toluene compounds Me=1.*)

- Toluene-2-sulphonic acid**, 4-chloro-, and its salts (DE ROODE), 1891, A., 1227; (WYNNE), 1892, T., 1078; P., 140.
- 4-iodo- (*o*-( $\beta$ )-*acid*) and its salts (DE ROODE), 1891, A., 1227.
- 4-fluoro- and its amide (DE ROODE), 1891, A., 1226.
- 4-nitro- (HAUSSER), 1891, A., 73.
- Toluene-3-sulphonic acid**, 4-chloro-, and its amide (WYNNE), 1892, T., 1078; P., 140.
- Toluene-4-sulphonic acid**, 2-bromo- (MILLER), 1892, T., 1023; P., 155.
- 2-chloro-, and its amide (PAYSAN), 1884, A., 73.
- Toluene-5-sulphonic acid**, 2-bromo-, and its amide (MILLER), 1892, T., 1030; P., 155.
- 2-bromo-, and its chloride, bromide and amide (WYNNE), 1892, T., 1041; P., 155.
- 2:3-*dibromo*-, and its salts, and chloride, bromide and amide (WYNNE), 1892, T., 1038; P., 155.
- 2-chloro-, and its salts and chloride and amide (WYNNE), 1892, T., 1040, 1072; P., 139, 140.
- 2-nitro- (LIMPRICHT), 1885, A., 1234; (FOTH), 1886, A., 153.
- Toluene- $\omega$ -sulphonic acid** (*benzylsulphonic acid*), derivatives of (MOHR), 1884, A., 69.
- 4-bromo- (JACKSON and HARTSHORN), 1884, A., 665.
- Toluenesulphonic acids**, isomeric, formation of (GORDON), 1888, P., 78.
- Toluene-*p*-sulphonic chloride**, condensation of amido-acids with (HEDIN), 1891, A., 203.
- p*-**Toluenesulphonic iodide** (OTTO and TRÖGER), 1891, A., 718.
- Toluenesulphothiosulphonic anhydride** (OTTO and TRÖGER), 1891, A., 924.
- Toluenethiosulphonic acid**, reactions of (OTTO and RÖSSING), 1892, A., 478.
- Toluene- $\omega$ -thiosulphonic acid** (*benzylthiosulphonic acid*), sodium salt of (PURGOTTI), 1890, A., 1419.
- Toluenethiosulphonic acids** and their salts, action of ethylic chlorocarbonate on (OTTO and RÖSSING), 1891, A., 926.
- Toluenethiosulphonic thioanhydride** (OTTO and TRÖGER), 1891, A., 924.
- Toluic acid**, nitrosulpho- (LIMPRICHT), 1885, A., 1234.
- $\alpha$ -**Toluic acid**. See Phenylacetic acid.
- o*-Toluic acid** (*methylbenzoic acid*) (RACINE), 1887, A., 945.

(*Toluene compounds Me=1.*)

- o*-Toluic acid** (*methylbenzoic acid*), derivatives of (JACOBSEN and WIERS), 1883, A., 1121; (RACINE), 1887, A., 945.
- 5-amido-, phosphate of (HÖNIG), 1886, A., 242.
- 4-bromo- (JACOBSEN), 1885, A., 143; (CLAUS and PIESZCZEK), 1887, A., 240; (CLAUS and KUNATH), 1889, A., 987.
- 5-bromo- (NOURRISSON), 1887, A., 668; (CLAUS and KUNATH), 1889, A., 987.
- nitration and bromination of (CLAUS and BECK), 1892, A., 1207.
- 4:5- and 3:5-*dibromo*-, and 5:3-, 5:4- and 5:6-bromonitro- (CLAUS and BECK), 1892, A., 1207.
- 4-, 5- and 6-nitro- (JACOBSEN), 1884, A., 745.
- m*-**Toluic acid** (SPICA), 1883, A., 459; (MÜLLER), 1887, A., 724.
- 2-amido-, and its derivatives (*p*-*methylanthranilic acid*) (PANAOTIĆ), 1886, A., 361.
- $\omega$ -amido- (REINGLASS), 1891, A., 1345.
- 4-chloro- (CLAUS), 1892, A., 1201.
- $\omega$ -chloro- (REINGLASS), 1891, A., 1344.
- 4:6-*dichloro*- (CLAUS and BURSTERT), 1890, A., 1106.
- nitro-, from nitro-*m*-isocymene (KELBE and WARTH), 1884, A., 46.
- 5-nitro- (TÖHL), 1885, A., 522.
- p*-**Toluic acid**, 3-amido- (*m*-*homanthranilic acid*) (NIEMENTOWSKI), 1888, A., 337; 1889, A., 1065; (NIEMENTOWSKI and ROZAŃSKI), 1888, A., 1088; (NOYES), 1889, A., 394; (FILETI and CROSA), 1889, A., 495.
- 2:3-, 2:6- and 3:6-*diamido*- (CLAUS and JOACHIM), 1892, A., 176.
- 2- and 3-bromo- (CLAUS and KUNATH), 1889, A., 987.
- 8-bromo- (FILETI and CROSA), 1889, A., 496.
- 2:5-*dibromo*-, and its salts (SCHULTZ), 1885, A., 1054.
- 2:3-, 2:5- and 3:5-*dibromo*- (CLAUS and HERBANY), 1892, A., 175.
- 2:6-*dibromo*- (CLAUS and SEIBERT), 1892, A., 176.
- 3:6-*dibromo*- (FILETI and CROSA), 1889, A., 496; (CLAUS and BEYSEN), 1892, A., 177.
- 3:6-bromamido- (FILETI and CROSA), 1889, A., 495.
- 3:2-, 3:5- and 3:6-bromonitro- (CLAUS and HERBANY), 1892, A., 174.
- 3:6-bromonitro- (FILETI and CROSA), 1887, A., 37; 1889, A., 495.

(*Toluene compounds Me=1.*)

- p*-**Toluic acid**, 6:2- and 6:3-bromonitro- (CLAUS and BEYSEN), 1892, A., 178.  
*ω*-chloro- (MELLINGHOFF), 1890, A., 239.  
 2- and 3-chloro- (CLAUS and DAVIDSEN), 1889, A., 988.  
 2:6-dichloro- (CLAUS and BEYSEN), 1892, A., 178.  
 3:6-dichloro- (CLAUS and DAVIDSEN), 1892, A., 172.  
 3:6-chloramido- (CLAUS and DAVIDSEN), 1892, A., 172.  
 2:5-chloramido- (CLAUS and BÖCHER), 1892, A., 173.  
 chlorobromo- and chlorobromonitro- (WILGERODT and WOLFIEN), 1889, A., 966.  
 3:6-chlorobromo- (CLAUS and DAVIDSEN), 1892, A., 173.  
 2:3- and 2:5-chloronitro- (CLAUS and BÖCHER), 1892, A., 174.  
 2:6-chloronitro- (CLAUS and BÖCHER), 1892, A., 174; (CLAUS and BEYSEN), 1892, A., 178.  
 3:2-chloronitro- (CLAUS and DAVIDSEN), 1892, A., 173.  
 3:6-chloronitro- (FILETI and CROSA), 1889, A., 496; (CLAUS and DAVIDSEN), 1889, A., 988; 1892, A., 172.  
 3-chloro-2:6-dinitro- (CLAUS and DAVIDSEN), 1889, A., 988.  
*ω*-cyano- (MELLINGHOFF), 1890, A., 240.  
 2-nitro- (NOYES), 1889, A., 395.  
 3-nitro- (NIEMENTOWSKI and ROZAŃSKI), 1888, A., 1088; (NOYES), 1889, A., 394.  
 2:3- and 3:6-dinitro- (ROZAŃSKI), 1890, A., 52.  
 2:3-, 2:6- and 3:6-dinitro- (CLAUS and JOACHIM), 1892, A., 176.  
 3:5-dinitro- (CLAUS and BEYSEN), 1892, A., 177.  
 6:3-nitramido- (FILETI and CROSA), 1889, A., 495.  
 2:6- and 3:6-nitramido- (CLAUS and BEYSEN), 1892, A., 177.  
 3-sulpho-, and its derivatives (RANDALL), 1891, A., 1228.  
 3-sulphamido- (WEBER), 1892, A., 1092.  
**Toluic acids**, thermochemistry of (STOHMANN, KLEBER and LANGBEIN), 1889, A., 1096.  
*p*-**Toluic anhydride**, 3-sulpho- (RANDALL), 1891, A., 1229.  
*p*-**Toluic sulphinide** ("methylsaccharin") (ANON.), 1890, A., 382; (RANDALL), 1891, A., 1228; (WEBER), 1892, A., 1092.

(*Toluene compounds Me=1.*)

- Toluide**, sulpho- (*di-p-tolylsulphone*), decomposition of (OTTO), 1886, A., 1031.  
**Toluidine**, last runnings obtained in the purification of (HELL and ROCKENBACH), 1889, A., 600.  
 naphthate and phenate (DYSON), 1883, T., 468.  
*o*-**Toluidine**, action of benzylic chloride on (RABAUT), 1892, A., 48.  
 influence of nucleal methyl on the properties of (ROSENSTIEHL), 1892, A., 1319.  
 and furfuraldehyde, condensation of (DE CHALMOT), 1892, A., 1452.  
 methylation and ethylation of (REINHARDT and STAEDEL), 1883, A., 578.  
 nitration of (NÖLTING and COLLIN), 1884, A., 1012.  
 sulphonation of (CLAUS and IMMEL), 1891, A., 1490.  
 chloracetate (BISCHOFF), 1888, A., 727.  
 hydrobromide and hydriodide (STAEDEL), 1883, A., 578.  
 hydrochloride, spectrum of (HARTLEY), 1885, T., 739.  
 ethylmalonate, action of phosphorus pentachloride on (RÜGHEIMER and SCHRAMM), 1888, A., 502.  
 malate (BISCHOFF and NASTVOGEL), 1890, A., 1163.  
 hydrogen sulphate (WELLINGTON and TOLLENS), 1886, A., 347.  
 hydrogen diaminechromium thiocyanate (CHRISTENSEN), 1892, A., 1000.  
 detection of small quantities of *p*-toluidine in (HAEUSSERMANN), 1888, A., 203.  
*o*-**Toluidine**, 5-bromo- (ALT), 1889, A., 1214.  
 chloro-, conversion of, into chlorotoluene (WYNNE), 1892, T., 1047; P., 139.  
 conversion of, into *dichlorotoluene* (WYNNE), 1892, T., 1049; P., 139.  
 4-chloro- (GOLDSCHMIDT and HÖNIG), 1886, A., 1022.  
 2:3:4- and 2:4:5-trichloro- (SEELIG), 1885, A., 769.  
 cyano-, and its salts (BLADIN), 1884, A., 1142.  
 3-nitro- (LELLMANN and WÜRTHNER), 1885, A., 974.  
 action of reducing agents on (GRAEFF), 1885, A., 1127.

(Toluene compounds Me=1.)

- o-Toluidine**, 4-nitro- (NÖLTING and COLLIN), 1884, A., 1006, 1012; (LEVINSTEIN), 1885, A., 1127; (GREEN and LAWSON), 1891, T., 1015.  
 reduction of (GREEN and LAWSON), 1891, T., 1016.  
 displacement of the amido-group in, by chlorine (GREEN and LAWSON), 1891, T., 1017; P., 129.  
 derivatives of (NÖLTING and COLLIN), 1884, A., 1006.  
**5-nitro-** (LELLMANN and WÜRTNER), 1885, A., 974; (GREEN and LAWSON), 1891, T., 1013.  
**6-nitro-** (BERNTHSEN), 1883, A., 579; (GREEN and LAWSON), 1891, T., 1013.  
 from liquid dinitrotoluene (BERNTHSEN), 1883, A., 579; (ULLMANN), 1884, A., 1316.  
 reduction of (GREEN and LAWSON), 1891, T., 1016.  
 displacement of the amido-group in, by chlorine (GREEN and LAWSON), 1891, T., 1017; P., 129.  
**3:5-dinitro-** (STAEDEL), 1883, A., 865; (BARR), 1888, A., 823.  
**ω-nitroso-** (MEYER), 1886, A., 63.  
**5-nitroso-** (MEHNE), 1888, A., 463.  
**o-thionyl-** (MICHAELIS), 1891, A., 717.  
**m-Toluidine**, preparation of (EHR-  
 LICH), 1883, A., 54.  
 nitration of (NÖLTING and STOECK-  
 LIN), 1891, A., 692.  
**4-bromo-** (CLAUS), 1892, A., 1201.  
**4-chloro-** (GATTERMANN and KAI-  
 SER), 1886, A., 49; (GOLDSCHMIDT  
 and HÖNIG), 1886, A., 1022;  
 (CLAUS), 1892, A., 1201.  
**5-chloro-** (HÖNIG), 1887, A., 1034.  
**6-chloro-**, and its derivatives (GOLD-  
 SCHMIDT and HÖNIG), 1887, A.,  
 363.  
 cyano-, and its salts (BLADIN), 1884,  
 A., 1142.  
**2-nitro-** (LIMPRICHT), 1885, A., 974.  
 action of reducing agents on  
 (GRAEFF), 1885, A., 1127.  
**4-nitro-** (STAEDEL and KOLB), 1891,  
 A., 187.  
**5-nitro-** (STAEDEL), 1883, A., 865.  
**6-nitro-** (FILETI and CROSA), 1889,  
 A., 495.  
**4:6-dinitro-** (HEPP), 1883, A., 317;  
 (STAEDEL and KOLB), 1891, A., 187.  
**2:4:6-trinitro-** (NÖLTING and v.  
 SALIS), 1883, A., 59.  
**6-nitroso-** (MEHNE), 1888, A., 463.

(Toluene compounds Me=1.)

- p-Toluidine**, production of, from *p*-  
 cresol (BUCH), 1885, A., 147.  
 spectrum of (HARTLEY), 1885, T.,  
 741.  
 action of benzylic chloride on (RA-  
 BAUT), 1892, A., 313.  
 action of bromine on, in presence of  
 sulphuric acid (HAFNER), 1890,  
 A., 137.  
 diazotised, action of, on methyl-*p*-  
 bromaniline (MELDOLA and STREAT-  
 FEILD), 1889, T., 433.  
 diazotised, action of, on methyl-*p*-  
 chloraniline (MELDOLA and  
 STREATFEILD), 1889, T., 436.  
 action of sulphur on (GREEN), 1889,  
 T., 228.  
 nitration of (NÖLTING and COLLIN),  
 1884, A., 1012.  
 oxidation of (KLINGER and PIT-  
 SCHKE), 1885, A., 151.  
 from *p*-nitrobenzaldehyde, condensa-  
 tion products of (BISCHLER), 1888,  
 A., 287.  
 citric acid derivatives of (GILL),  
 1887, A., 40.  
 azophenine of (NÖLTING and WITT),  
 1884, A., 743.  
 chloracetate (BISCHOFF), 1888, A.,  
 726.  
 allocinnamate (LIEBERMANN), 1891,  
 A., 833.  
 hydrate (LEWY), 1887, A., 134.  
 hydrobromide and hydriodide (STAE-  
 DEL), 1883, A., 578.  
 oxalate (BORNEMANN), 1890, A., 137.  
 picrate (SMOLKA), 1886, A., 454.  
 sulphate as a test for nitric acid  
 (LONGI), 1884, A., 365.  
 hydrogen sulphate (WELLINGTON and  
 TOLLENS), 1886, A., 347.  
 commercial, assay of (RAABE), 1892,  
 A., 925.  
 estimation of (SCHOEN), 1890, A., 839.  
**p-Toluidine**, 3:5-dibromo- (CLAUS and  
 HERBANY), 1892, A., 175.  
 3:5:6-tribromo- (CLAUS and IMMEL),  
 1891, A., 1491.  
 3:5-bromonitro- (HAND), 1886, A.,  
 1018.  
 3:6-bromonitro- (CLAUS and HER-  
 BANY), 1892, A., 174.  
 chloro-, conversion of, into chloro-  
 toluene (WYNNE), 1892, T., 1058;  
 P., 139.  
 2-chloro- (WITT), 1892, A., 445.  
 3-chloro- (ERDMANN), 1891, A.,  
 1466.  
 2:5-chloronitro- (CLAUS and BÖCHER),  
 1892, A., 173.



(*Toluene compounds*  $Me=1.$ )

*p*-Toluidine, 3:5- and 3:6-chloronitro- (CLAUS and DAVIDSEN), 1892, A., 172.

cyno-, and its salts (BLADIN), 1884, A., 1141.

2-nitro- (BERNTHSEN), 1883, A., 579; (NÖLTING and COLLIN), 1884, A., 1012; (ULLMANN), 1884, A., 1316; (LEVINSTEIN), 1885, A., 1127.

3-nitro- (NÖLTING and COLLIN), 1884, A., 1012.

action of ethylenic bromide on (GATTERMANN and HAGER), 1884, A., 1142.

action of reducing agents on (LIMPRICHT), 1885, A., 974; GRAEFF, 1885, A., 1127.

derivatives of (GATTERMANN), 1885, A., 975.

oxalic acid derivatives of (HINSBERG), 1883, A., 323.

*β*-dinitro- (HEPP), 1883, A., 317.

3:5-dinitro-, constitution of (STAEDEL), 1883, A., 865.

thio-, and its derivatives (TRUHLAR), 1887, A., 472.

thionyl- (MICHAELIS and HERZ), 1891, A., 310.

Toluidines (LEWY), 1886, A., 872.

heat of formation of (PETIT), 1888, A., 1239.

action of benzylic chloride on (RABAUT), 1892, A., 313.

action of *di*brom-*α*-naphthol on (MELDOLA), 1884, T., 156.

action of cyanogen on (BLADIN), 1884, A., 1141.

isomeric, action of *p*-diazobenzene-sulphonic acid on (GRIESS), 1883, A., 182.

action of nascent nitrous acid on (DENINGER), 1890, A., 38.

action of sulphur on (GATTERMANN), 1889, A., 602.

chlorination of, and bromination of, in presence of an excess of a mineral acid (HAFNER), 1890, A., 37.

physiological action of (GIBBS and HARE), 1890, A., 1018.

compounds of, with cupric chloride (POMEY), 1887, A., 472.

compounds of metallic sulphites with (DENIGÈS), 1891, A., 1031.

compounds of, with zinc chloride (LACHOWICZ and BANDROWSKI), 1888, A., 1281.

quantitative analysis of (MINIATI, BOOTH and COHEN), 1888, A., 202.

(*Toluene compounds*  $Me=1.$ )

Toluidines, separation of (WÜLFING), 1886, A., 1021; 1887, A., 576.

separation of, from aniline (LEWY), 1884, A., 46.

*o*-Toluidinealloxan (PELLIZZARI), 1888, A., 682.

*o*-Toluidine-3:5-disulphonic acid (LIMPRICHT), 1884, A., 1232; (HASSE), 1886, A., 150.

*p*-Toluidine-2:3- and -2:6-disulphonic acids and their salts (RICHTER), 1886, A., 151.

*o*-Toluidine-*p*-sulphinic acid and its salts (PAYSAN), 1884, A., 454.

*p*-Toluidine-*o*-sulphinic acid and its salts (HEFFTER), 1884, A., 454.

*o*-Toluidine-*p*-sulphonamide (PAYSAN), 1884, A., 72.

*p*-Toluidine-*o*-sulphonamide (HEFFTER), 1884, A., 73.

Toluidinesulphonic acid, amido-. See Tolylenediaminesulphonic acid.

*o*-Toluidinesulphonic acid, action of nascent nitrous acid on (DENINGER), 1890, A., 39.

*o*-Toluidine-4-sulphonic acid, and 3:5-*di*bromo- (CLAUS and IMMEL), 1891, A., 1490.

*o*-Toluidine-5-sulphonic acid (HASSE), 1886, A., 150; (FOTH), 1886, A., 153; (JANOVSKY), 1888, A., 956; (CLAUS and IMMEL), 1891, A., 1490; (WYNNE), 1892, T., 1037; P., 155.

salts of (WYNNE), 1892, T., 1037; P., 155.

• 3-bromo- (CLAUS and IMMEL), 1891, A., 1490; (WYNNE), 1892, T., 1037; P., 155.

4-iodo-, and its barium salt (LIMPRICHT), 1885, A., 1234; (FOTH), 1886, A., 153.

3-nitro- (NIETZKI and POLLINI), 1890, A., 502.

*m*-Toluidine-6-sulphonic acid (CLAUS and IMMEL), 1891, A., 1490.

*p*-Toluidine-2-sulphonic acid (LIMPRICHT), 1885, A., 1233; (JANOVSKY), 1888, A., 956.

3-nitro- (NIETZKI and POLLINI), 1890, A., 502.

*p*-Toluidine-2- and -3-sulphonic acids, separation of (SCHNEIDER), 1887, A., 146.

*p*-Toluidine-3-sulphonic acid (LIMPRICHT), 1885, A., 1233; (JANOVSKY), 1888, A., 956.

*p*-Toluidine-5-sulphonic acid, 2-nitro-, and its salts (LIMPRICHT), 1885, A., 1233; (FOTH), 1886, A., 152.

(Toluene compounds  $Me=1$ .)

*p*-Toluidine-5-sulphonic acid, 3-nitro- (NIETZKI and POLLINI), 1890, A., 502.

*o*-Toluidine-*p*-thiosulphonic acid (PAY-SAN), 1884, A., 453.

*p*-Toluidine-*o*-thiosulphonic acid (HEFFTER), 1884, A., 454.

Toluido-. See Tolylamido-.

Toluidylmelamine (FRIES), 1886, T., 742.

Toluisatin (*ditolylloxindole*) and its derivatives (V. BAEYER and LAZARUS), 1886, A., 154.

Tolunaphthazines, isomeric, constitution of (WITT), 1887, A., 591.

Tolunitranilic acid (4-nitro-3:6-dihydroxytoluquinone) (KEHRMANN), 1888, A., 940; (KEHRMANN and BRASCH), 1889, A., 969.

*p*-Toluoïn (STIERLIN), 1889, A., 513.

*o*-Toluoïntrile from form-*o*-toluide (GASIOROWSKI and MERZ), 1884, A., 734.

heats of combustion and formation of (BERTHELOT and PETIT), 1889, A., 812.

$\omega$ -bromo- (DRORY), 1891, A., 1461.

5-bromo- (NOURRISSON), 1887, A., 668; (CLAUS and KUNATH), 1889, A., 987.

3:5-dibromo- (CLAUS and BECK), 1892, A., 1207.

$\omega$ -chloro- (GABRIEL and OTTO), 1887, A., 1035; (DRORY), 1891, A., 1460.

*di*- $\omega$ -chloro- (GABRIEL and WEISE), 1888, A., 261.

*p*-Toluoïntrile from formo-*p*-toluide (GASIOROWSKI and MERZ), 1884, A., 734.

3-amido- (NIEMENTOWSKI), 1888, A., 837; (GLOCK), 1888, A., 1291.

2-bromo- (CLAUS and KUNATH), 1889, A., 987.

2:6-dibromo- (CLAUS and SEIBERT), 1892, A., 176.

3:5-dibromo- (CLAUS and HERBANY), 1892, A., 175.

3:5- and 3:6-bromonitro- (CLAUS and HERBANY), 1892, A., 175.

2- and 3-chloro- (CLAUS and DAVIDSEN), 1889, A., 988.

*di*- $\omega$ -chloro- (GABRIEL and WEISE), 1888, A., 261; (REINGLASS), 1891, A., 1344.

2:5-chloronitro- (CLAUS and BÖCHER), 1892, A., 173.

3:6-chloronitro- (CLAUS and DAVIDSEN), 1892, A., 172.

3-nitro- (LEUCKART), 1886, A., 351; (NIEMENTOWSKI), 1888, A., 837; (WEISE), 1890, A., 47.

(Toluene compounds  $Me=1$ .)

*p*-Toluoïntrile, 3:5-dinitro- (CLAUS and BEYSEN), 1892, A., 177.

Toluoïlazimide (NIEMENTOWSKI), 1888, A., 837.

*p*-Toluoïl-*o*-benzoic acid (FRIEDEL and CRAFTS), 1889, A., 242.

*dichloto*- (LE ROYER), 1887, A., 832.

*o*-Toluoïlcyanocamphor (HALLER), 1891, A., 1499.

*p*-Toluoïl-ethylamide and -methylamide (GATTERMANN and SCHMIDT), 1887, A., 358.

*p*-Toluoïl- $\beta$ -propionic acid (CLAUS and SCHLARB), 1887, A., 827; (BURCKER), 1888, A., 951.

*o*-Toluoïl-*o*-tolenylamidoxime (STIEGLITZ), 1890, A., 255.

*p*-Toluoïl-*p*-toluide (LEUCKART), 1890, A., 759.

*o*-Toluoïlxylyde (SMITH), 1892, A., 491.

Toluphenanthrazine, bromo- (HARTMANN), 1890, A., 976.

$\alpha$ -Toluphosphinic acid and its derivatives (WELLER), 1887, A., 825.

*p*-Toluphosphonic acid (WELLER), 1888, A., 836.

Toluphosphonic acids,  $\alpha$ - and  $\beta$ -, derivatives of (WELLER), 1888, A., 835.

Tolualdine. See Dimethylquinoline.

2:5-Toluoïnol (*hydrotoluoïnone*)

(SCHNITER), 1887, A., 1036.

compounds of, with amines (HEBE-BRAND), 1883, A., 60.

and methyl ethers of, and their condensation products (NIETZKI), 1888, A., 467.

4:6-diamido- (KEHRMANN and BRASCH), 1889, A., 970.

4-bromo- (SCHNITER), 1887, A., 1036.

*tribromo*- (CANZONERI and SPICA), 1883, A., 331.

$\beta$ -chloro- (SCHNITER), 1887, A., 1036.

*trichloro*- (CLAUS and RIEMANN), 1883, A., 1112.

$\alpha$ - and  $\beta$ -chlorobromo- (SCHNITER), 1887, A., 1036.

3-iodo- (KEHRMANN), 1889, A., 993.

*dinitro*- (WENDER), 1890, A., 752.

4:6-dinitro- (KEHRMANN and BRASCH), 1889, A., 969.

nitramido- (KEHRMANN and BRASCH), 1889, A., 970.

Tolualdine. See Methylquinoline.

2:5-Tolualdine (SCHNITER), 1887, A., 1036.

compound of, with *o*-nitraniline (HEBE-BRAND), 1883, A., 61.

3-bromo- (CLAUS and JACKSON), 1889, A., 128.

4-bromo- (SCHNITER), 1887, A., 1036.

(Toluene compounds Me=1.)

**2:5-Tolquinone**, *di-* and *tri-*bromo- (CANZONERI and SPICA), 1883, A., 330.*tribromo-*, action of potassium hydroxide on (SPICA and MAGNANIMI), 1884, A., 175.*α*-chloro- (CLAUS and SCHWEITZER), 1886, A., 614.*β*-chloro- (SCHNITER), 1887, A., 1036.*3:4:6-trichloro-* (CLAUS and RIE-MANN), 1883, A., 1112.*α*- and *β*-chlorobromo- (SCHNITER), 1887, A., 1036.*3-iodo-*, and *4:6-diiodo-* (KEHRMANN), 1889, A., 993.**Tolquinonechlorimide** [m.p. 88°] and its derivatives (HIRSCH), 1885, A., 892.

[m.p. 75°] (STAEDEL and KOLB), 1891, A., 187.

**Tolquinoneoxime**. See Nitroso-*o*-cresol.**Tolquinone-2:5-dioxime** (MEHNE), 1888, A., 463; (NIETZKI and GUTERMANN), 1888, A., 471.**Tolquinonetetroxime** and its anhydride (GOLDSCHMIDT and STRAUSS), 1887, A., 809.**Tolquinoxaline**. See Methylquinoxaline.**Toluric acids**, *o*-, *m*- and *p*- (GLE-DITSCH and MOELLER), 1889, A., 708.**Toluthiamides**, *o*- and *p*- (GABRIEL and HEYMAN), 1891, A., 701.**Tolylene**. See Stilbene.***p*-Tolyl benzyl ketone** (STRASSMANN), 1889, A., 883.

oxidation of (BUCHER), 1890, A., 260.

bromo-derivatives of (BUCHER), 1890, A., 260.

***p*-Tolyl benzyl oxide** (STAEDEL), 1883, A., 585.

nitro-derivatives (FRISCHE), 1884, A., 1337.

***p*-Tolyl dibromomethyl ketone** (CLAUS), 1890, A., 769.**Tolyl ether**, preparation of, from *p*-cresol (BUCH), 1885, A., 147.**Tolyl ethers**, heat equivalent of (STOH-MANN, RODATZ and HERZBERG), 1887, A., 428.**Tolyl ethyl ether**. See Ethoxytoluene.  
***p*-Tolyl ethyl ketone**, and its nitro-derivatives (ERRERA), 1891, A., 1052.***p*-Tolyl glycidyl ether** (LINDEMANN), 1891, A., 1199.***p*-Tolyl heptadecyl ketone** (KRAFFT), 1888, A., 1087.

(Tolyl compounds Me=1.)

**Tolyl methyl ether**. See Methoxytoluene.**Tolyl methyl and ethyl ethylene di-oxides** (SCHREIBER), 1891, A., 553.***o*-Tolyl methyl ketone**, 5-bromo- and 5-chloro- (CLAUS), 1891, A., 911.***m*-Tolyl methyl ketone** (ESSNER and GOSSIN), 1885, A., 252; (v. BUCHKA and IRISH), 1887, A., 826.*6-amido-* (KLINGEL), 1884, A., 1343; 1886, A., 60.*4-bromo-* (SCHÖPF), 1892, A., 338; (CLAUS), 1892, A., 1200.*6-bromo-* (CLAUS), 1891, A., 911.*4-chloro-* (CLAUS), 1892, A., 1201.*6-chloro-* (CLAUS), 1891, A., 911.***p*-Tolyl methyl ketone** (CLAUS and RIEDEL), 1886, A., 462; (CLAUS), 1890, A., 769.

oxidation of (CLAUS and NEUKRANZ), 1891, A., 1364.

derivatives of (ERRERA), 1891, A., 1021.

***m*-Tolyl methyl ketoxime**, 4-bromo- and 4-chloro- (CLAUS), 1892, A., 1201.***p*-Tolyl methyl ketoxime** (CLAUS), 1890, A., 769.***p*-Tolyl methyl pinacone** (*ditolylbutylene glycol*) (CLAUS), 1890, A., 769.***p*-Tolyl nitrosomethyl ketone** (MÜLLER and v. PECHMANN), 1890, A., 52.***o*-Tolyl oxide** (GLADSTONE and TRIBE), 1886, T., 28.***p*-Tolyl pentadecyl ketone** (KRAFFT), 1888, A., 1087.***p*-Tolyl disulphoxide** (OTTO and RÖSSING), 1885, A., 1232.***o*-Tolyl xylol ketone** (SMITH), 1892, A., 491.***o*-Tolylacetamide**, *trichloro-* (CLOËZ), 1887, A., 1098.***m*-Tolylacetic acid** (*m-methylphenylacetic acid*), dinitro- (SENKOWSKI), 1889, A., 255.***p*-Tolylacetic acid** (RADZISZEWSKI and WISPEK), 1885, A., 889; (CLAUS and KROSEBERG), 1887, A., 949; (STRASSMANN), 1889, A., 883.

preparation of (CLAUS and WEHR), 1891, A., 1365.

*2-mononitro-*, and *2:6-dinitro-* (CLAUS and WEHR), 1891, A., 1365.**Tolylacetic acids** (RADZISZEWSKI and WISPEK), 1885, A., 889.***m*-Tolylacetylene** (*methylcinnamene*; *methylstyrene*), and its bromo-derivative (MÜLLER), 1887, A., 725.



(Tolyl compounds Me=1.)

*p*-Tolylacetylene dibromide (SCHRAMM), 1891, A., 898.*o*-Tolylacrylic acid (*methylcinnamic acid*) (KRÖBER), 1890, A., 969.*m*-amido- (V. MILLER and ROHDE), 1890, A., 1140.*m*-Tolylacrylic acid (BORNEMANN), 1884, A., 1163; 1887, A., 829; (MÜLLER), 1887, A., 724.

derivatives of (MÜLLER), 1887, A., 724.

salts of (BORNEMANN), 1884, A., 1163.

*p*-Tolylacrylic acid (KRÖBER), 1890, A., 969; (V. MILLER and ROHDE), 1890, A., 1140.

Tolylalanine. See Tolylamidopropionic acid.

Tolylallylsemithiocarbazides, *o*- and *p*- (AVENARIUS), 1891, A., 550.*p*-Tolylallylsulphone (OTTO), 1891, A., 1067.

Tolylallylthiocarbamide (DIXON), 1889, T., 622; (PRAGER), 1890, A., 160.

*m*-Tolylamidoacetic acid (C<sub>7</sub>H<sub>7</sub>CH(NH<sub>2</sub>)COOH) (BORNEMANN), 1884, A., 1163.*o*-Tolylamidoacetic acid (*tolylglycine*; *tolylglycin*) and its derivatives (EHRlich), 1883, A., 594; (BISCHOFF and HAUSDÖRFER), 1890, A., 1285; 1892, A., 1333.

calcium salt of (MAUTHNER and SUDA), 1891, A., 39.

*m*-Tolylamidoacetic acid, and its derivatives (EHRlich), 1883, A., 54.*p*-Tolylamidoacetic acid, and its derivatives (BISCHOFF and HAUSDÖRFER), 1890, A., 1284; 1892, A., 1335.

fusion of, with alkalis (HEUMANN), 1891, A., 928.

*o*-nitro- (PLÖCHL), 1886, A., 351.

salts of (LEUCKART and HERMANN), 1887, A., 383.

*p*-Tolylamidoacetimide (BISCHOFF and HAUSDÖRFER), 1890, A., 1284.*o*-Tolylamidoacetotoluidide (EHRlich), 1883, A., 593.*o*-Tolylamidoaceto-*o*-tolylamidoacetic acid (ABENIUS and WIDMAN), 1888, A., 824.*p*-(*o*)-Tolylamidobenzoic acid, *m*-amido-, and *m*-nitro- (HEIDENSLEBEN), 1891, A., 306.*p*-(*p*)-Tolylamidobenzoic acid, *m*-amido- (HEIDENSLEBEN), 1891, A., 306.*m*-nitro- (SCHÖPF), 1890, A., 374; (HEIDENSLEBEN), 1891, A., 306. $\alpha$ -Tolylamidobutyric acids, *o*- and *p*- (BISCHOFF and MINTZ), 1892, A., 1338.

(Tolyl compounds Me=1.)

Tolylamidoisobutyric acids,  $\alpha$ - and  $\beta$ -*o*- and *p*- (BISCHOFF and MINTZ), 1892, A., 1339.*p*-Tolylamidocinnoline (BUSCH and KLETT), 1892, A., 1494.Tolylamidoethylphthalimide, *o*- and *p*- (NEWMAN), 1891, A., 1207.*p*-Tolylamido-*p*-methyloxindole, and its salts (DUISBERG), 1885, A., 543.*p*-Tolylamidonaphthaquinone, *m*-nitro- (LEICESTER), 1890, A., 1447.

Tolylamidonaphthaquinoneditoluidide (FISCHER and HEPP), 1890, A., 910.

*p*-Tolylamido- $\beta$ -naphthaquinone-*p*-toluidide (MELDOLA), 1884, T., 159; (BRÖMME), 1888, A., 491.Tolylamidoperezone, *o*- and *p*- (MYLIUS), 1885, A., 778; (ANSCHÜTZ and LEATHER), 1886, T., 718.

Tolylamidophenol. See Hydroxyphenyltolylamine.

 $\alpha$ -Tolylamidopropionic acid (TIEMANN and STEPHAN), 1883, A., 199; (GERSON), 1887, A., 260.*p*- $\alpha$ -Tolylamidopropionic acid (TIEMANN and STEPHAN), 1883, A., 199; (BISCHOFF and HAUSDÖRFER), 1892, A., 1337.

3-nitro- (HINSBERG), 1892, A., 1359.

 $\alpha$ -Tolylamidopropionic acids and amides, *o*- and *p*-, and their tribromo-derivatives (TIEMANN and STEPHAN), 1883, A., 199; (STEPHAN), 1887, A., 143.*p*- $\beta$ -Tolylamidopropionic acid (*p*-tolyl- $\beta$ -alanine) (BISCHOFF and MINTZ), 1892, A., 1343. $\alpha$ -Tolylamidopropionitriles, *o*- and *p*-, dibromo- (STEPHAN), 1887, A., 143.

and their tribromo-derivatives (TIEMANN and STEPHAN), 1883, A., 199; (STEPHAN), 1887, A., 143.

*o*-Tolylamidopyrotartarimide (SCHILLER-WECHSLER), 1885, A., 901.*p*-Tolylamidotoluquinone, *m*-nitro- (LEICESTER), 1890, A., 1446.*o*-Tolylamidotricarballylic acid (EMERY), 1891, A., 680.

Tolylamine. See Toluidine.

Tolylammelins (OTTO), 1887, A., 1034.

Tolylanilido-. See Anilidotolyl-.

Tolylaniline, 2:4:6-trinitro- (*trinitro-3 anilidotoluene*) (BENTLEY and WARREN), 1890, A., 486; (JACKSON and BENTLEY), 1892, A., 1218.

Tolylauraminesalts (FEHRMANN), 1888, A., 157.

*p*-Tolylazimidobenzene, amido- (WILLGERODT), 1892, A., 1322.

(Tolyl compounds Me=1.)

- Tolylazo-*m*- and -*p*-cresols, sulpho-*o*- and -*p*- (sulphotoluenazocresols), and salts (NÖLTING and KOHN), 1884, A., 901.
- m*-Tolylbenzene. See 1:3-Methyldiphenyl.
- p*-Tolylbenzene (*phenyltoluene*), derivatives of (CARNELLEY and THOMSON), 1886, P., 258; 1887, T., 87.
- $\alpha$ -bromo- (CARNELLEY and THOMSON), 1885, T., 586; P., 88; 1887, T., 87.
- $\alpha$ - and  $\beta$ -*di*bromo- (CARNELLEY and THOMSON), 1887, T., 89.
- p*-Tolylbenzenylimidoximecarbonyl (MÜLLER), 1890, A., 43.
- p*-Tolylbenzenylthiouramidoxime (TIEMANN), 1891, A., 558; (KOCH), 1891, A., 561.
- m*-Tolylbenzoic acid (PERRIER), 1892, A., 851.
- Tolylbenzylacetic acid, *o*-, *m*- and *p*- (PÄPCKE), 1888, A., 701.
- p*-Tolylbenzylisobutylcarbamide (HAMMERICH), 1892, A., 1084.
- p*-Tolylbenzylcarbamic chloride (HAMMERICH), 1892, A., 1083.
- p*-Tolyl-*o*-benzylenediamine (SÖDERBAUM and WIDMAN), 1890, A., 1258.
- Tolylbenzyl cyanides, *o*-, *m*- and *p*- (PÄPCKE), 1888, A., 701.
- o*-Tolylbenzylideneamine (ETARD), 1883, A., 179.
- Tolylbenzylisophosphine (MICHAELIS and GLEICHMANN), 1883, A., 186.
- p*-Tolylbenzylsemithiocarbazide (DIXON), 1892, T., 1022.
- Tolylbenzylthiocarbamides, *o*-, *m*- and *p*- (DIXON), 1891, T., 555.
- p*-Tolylbromacetic acid (CLAUS and WEHR), 1891, A., 1366.
- p*-Tolylbromomethylidisulphone (OTTO), 1890, A., 381.
- Tolylbutane. See *iso*Butyltoluene.
- Tolylisobutyric acid, 6-nitro- (EFFRONT), 1885, A., 152.
- m*-Tolylcarbamide, *di*-*o*-chloro- (KOCK), 1887, A., 810.
- p*-Tolylcarbamide, and its derivatives (PINNOW), 1892, A., 460.
- di*thio- (TRUHLAR), 1887, A., 473.
- Tolylcarbinols, *o*- and *m*- (COLSON), 1885, A., 654.
- Tolylcarbinyl-acetamide and -carbamide (KRÖBER), 1890, A., 969.
- p*-Tolyl- $\omega$ -chlorobenzylsulphone (OTTO), 1890, A., 380.
- Tolyl*di*chloromethylidimethylcarbinol (WILLGERODT and GENIESER), 1888, A., 811.

(Tolyl compounds Me=1.)

- p*-Tolylcumylcarbamide (GOLDSCHMIDT and GESSNER), 1889, A., 774.
- p*-Tolyl- $\psi$ -cumylcarbamide (GOLDSCHMIDT and BARDACH), 1892, A., 979.
- o*-Tolyleyanamide (TIEMANN), 1889, A., 1165; 1890, A., 1127; (VOLTMER), 1891, A., 558.
- p*-Tolyl*di*benzylcarbamide (HAMMERICH), 1892, A., 1083.
- p*-Tolyl*di*ethylphosphine (CZIMATIS), 1883, A., 58.
- o*-Tolyl*di*ethylthiocarbamide (GEBHARDT), 1885, A., 383.
- p*-Tolyl*di*hydro- $\beta$ -phenotriazine (BUSCH), 1892, A., 734.
- Tolyl*di*hydroquinazolines, *o*- and *p*- (PAAL and BUSCH), 1890, A., 73.
- Tolyl*di*methyl*di*amidodiphenylmethane, *p*-nitro- (NÖLTING), 1892, A., 189.
- Tolyl*di*methyl-*di*amidophenylmethane and -*di*ethyl*di*amidodiphenylmethane, *p*-nitro- (NÖLTING), 1891, A., 727.
- m*-Tolyl*di*methylethylmethane (*tolylpentane*) (ESSNER and GOSSIN), 1885, A., 517.
- p*-Tolyl*di*methylphosphine and its derivatives (CZIMATIS), 1883, A., 57.
- p*-Tolyl*di*methylpyrrolidine and its dicarboxylic acid (KNORR), 1885, A., 555.
- 1:*o*-Tolyl-2:3-dimethylpyrazolone (KNORR), 1884, A., 1153.
- Tolyl*di*methylthiohydantoins, *o*- and *p*- (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.
- Tolyl- $\beta$ -dimethyl- $\mu$ -thiomethoxyglyoxalines, *v*-*o*- and *v*-*p*- (MARCKWALD, NEUMARK and STELZNER), 1892, A., 153.
- Tolyl*di*oxamide (SCHIFF and VANNI), 1891, A., 908; 1892, A., 603.
- Tolylene blue and red (BERNTHSEN and SCHWEITZER), 1887, A., 139; (NIETZKI and ERNST), 1890, A., 1114.
- Tolylenealdehydenitrodimethoxybenzenyl-*o*-carboxylic acid (BISTRZYCKI and CYBULSKI), 1892, A., 1249.
- Tolylene*di*amidocyanuric chloride (FRIES), 1886, T., 741.
- Tolyleneauramine (FEHRMANN), 1888, A., 157.
- Tolylenebenzenylamidine, nitro- (BISTRZYCKI and ULFFERS), 1892, A., 1197.
- Tolylene*o*carbamide (LEUCKART), 1890, A., 760.
- bromo- (HARTMANN), 1890, A., 975.
- Tolylene*di*allyl*di*thiocarbamide (LELMANN), 1885, A., 977.

(*Tolyl compounds Me=1.*)

**Tolylenediamine** (*diamidotoluene*), action of ethylic chloracetate on (ZIMMERMANN and KNYRIM), 1883, A., 797.

physiological action of (GIBBS and REICHERT), 1891, A., 1281.

ferruginous pigment formed in poisoning by (ENGEL and KIENER), 1888, A., 81.

$\alpha$ - and  $\beta$ -trichloro- (SEELIG), 1885, A., 770.

**2:3-Tolylenediamine** and its derivatives (LELLMANN), 1885, A., 976.

4-bromo- (HÜBNER and SCHÜPPHAUS), 1884, A., 1143.

**2:4-Tolylenediamine** and its salts (NÖLTING and COLLIN), 1884, A., 1007.

conversion of, into an amidocresol and  $\gamma$ -oreinol (WALLACH), 1883, A., 329.

citrate (SCHNEIDER), 1888, A., 465.

dinitro- (NIETZKI and RÖSEL), 1891, A., 192.

3:5:6-trinitro- (PALMER), 1889, A., 390.

**2:6-Tolylenediamine** (ULLMANN), 1884, A., 1316.

**3:4-Tolylenediamine** (SNAPE), 1886, T., 259.

action of monatomic aldehydes of the fatty series on (HINSBERG), 1887, A., 816.

action of cyanogen on (BLADIN), 1885, A., 784.

action of ethylic acetoacetate on (WITT), 1887, A., 247.

action of ethylic chloracetate on (HINSBERG), 1886, A., 83.

action of formaldehyde on (FISCHER and WRESZINSKI), 1892, A., 1496.

derivatives of (AUTENRIETH and HINSBERG), 1892, A., 709.

oxalic acid derivatives of (HINSBERG), 1883, A., 323.

5-bromo- (BISTRZYCKI), 1890, A., 970.

dicyano-, and its derivatives (BLADIN), 1885, A., 257.

**3:5-Tolylenediamine** (STAEDEL), 1883, A., 865.

**Tolylenediamineazobenzeneazobenzenesulphonic acid** (*azosulphobenzene-toluenediamine*) (GRIESS), 1883, A., 1103.

**3:4-Tolylenediaminebenzylidenesulphonic acid**, sodium salt of (KAFKA), 1891, A., 721.

**2:3-Tolylenediamine-5-sulphonic acid** (NIETZKI and POLLINI), 1890, A., 502.

(*Tolyl compounds Me=1.*)

**2:4-Tolylenediamine-5-sulphonic acid** (LIMPRICHT), 1885, A., 1234;

(FOTH), 1886, A., 153.

derivatives (LIMPRICHT), 1885, A., 1234.

**Tolylenediamine-*p*-thiosulphonic acid** (PERL), 1885, A., 391.

**2:4-Tolylenedioxiamethane** (*ethylic tolyldioxiamethane*) (SCHIFF and VANNI), 1891, A., 907; 1892, A., 603.

**Tolylenedioxiamic acid** (SCHIFF and VANNI), 1891, A., 908; 1892, A., 604.

**Tolylenediurethane** (SCHIFF and VANNI), 1890, A., 1124.

**Tolylene-ethenylamidine** (*ethenyltolylene-diamine*) (NIEMENTOWSKI), 1886, A., 545; 1892, A., 837; (WITT), 1887, A., 247.

bromo- (HARTMANN), 1890, A., 976.

nitro- (BANKIEWICZ), 1888, A., 1184.

mono- and di-nitro- (BISTRZYCKI and ULFFERS), 1892, A., 1197.

**Tolyleneisoethenylamidine** (*isoethenyltolylene-diamine*) and its derivatives (NIEMENTOWSKI), 1892, A., 838.

**Tolylene-ethenylethylamidine** (*ethylethenyltolylene-diamine*) (HINSBERG), 1887, A., 817.

**o-Tolylene-ethyldiamine** (KOCK), 1888, A., 469.

**m-Tolylene-ethyldiamine** (NÖLTING and STRICKER), 1886, A., 544.

**Tolylenemalonamide** (SCHIFF and VANNI), 1892, A., 600.

**Tolylenemethenylamidine** (*formanhydroisodiamidotoluene*) and its bromoderivative (HÜBNER and SCHÜPPHAUS), 1884, A., 1143.

**Tolylenemethyldiamine** (*o-amidomethyl-*p*-toluidine*) (BAMBERGER and WULZ), 1891, A., 1203.

**Tolylenemethylethenylamidine** (*methylethenyltolylene-diamine*) and its methiodide (NIEMENTOWSKI), 1887, A., 937.

**Tolyleneopiamine** (BISTRZYCKI), 1888, A., 1210.

**Tolylenoxamide** (SCHIFF and VANNI), 1892, A., 599, 1208.

**Tolylenephthalimidone** (BISTRZYCKI and CYBULSKI), 1892, A., 1248.

**Tolylenepropenylamidine** (BISTRZYCKI and ULFFERS), 1890, A., 1115.

**Tolylene-semiurethane and -urethane** (SCHIFF and VANNI), 1890, A., 1124.

**m-Tolylenedithiocarbamide**, and its preparation (BILLETER and STEINER), 1886, A., 234.

**Tolylenethiocarbamides**, *o*- and *m*- (BILLETER and STEINER), 1887, A., 367.



(*Tolyl compounds Me=1.*)  
*m-p*-Tolylene-mono- and -di-thiocarbamides and their derivatives (LELLMANN), 1884, A., 49.  
 Tolylene-mono- and -di-thiocarbimides (BILLETER and STEINER), 1886, A., 234.  
*m*-Tolylenedithiourethane (BILLETER and STEINER), 1887, A., 367.  
 Tolylenic diazosulphide (JACOBSON and NEY), 1889, A., 772.  
*m*-Tolylenic diisocyanate (SNAPE), 1886, T., 257.  
 Tolylethenylamidine (WALLACH), 1883, A., 48.  
 Tolylethylenediamines, *o*- and *p*- (NEWMAN), 1891, A., 1207.  
*p*-Tolylethylhydrazidopyruvic acid (HEGEL), 1886, A., 552.  
*p*-Tolylethylnitrosamine (GASTIGER), 1885, A., 381.  
*o*-Tolylethylsemithiocarbazide (DIXON), 1890, T., 262.  
*p*-Tolylethylsulphone (OTTO), 1885, A., 537.  
 Tolylethylthiobiuret (TURSINI), 1884, A., 1141.  
*p*-Tolylethylthiourethane, *o*-nitro- (STEUEDEMAN), 1884, A., 307.  
*p*-Tolylformamidine, cyano- (COMSTOCK and WHEELER), 1892, A., 707.  
 Tolylfurfuryl-carbamide and -thiocarbamide (DEUTZMANN), 1892, A., 43.  
 Tolylglycine (*tolyglycin*). See Tolylamidoacetic acid.  
*o*-Tolylglycollic acid (OGLIALORO-TODARO and CANNONE), 1890, A., 375.  
*m*-Tolylglycollic acid (OGLIALORO-TODARO and FORTE), 1891, A., 320.  
*p*-Tolylglycollic acid, derivatives of (NAPOLITANO), 1883, A., 1126.  
*p*-Tolylglyoxal hydrate (MÜLLER and v. PECHMANN), 1890, A., 52.  
*ν-p*-Tolylglyoxaline (MARCKWALD), 1892, A., 1329.  
*ν-p*-Tolylglyoxalyl methyl sulphide (MARCKWALD), 1892, A., 1329.  
*ν-p*-Tolylglyoxalyl- $\mu$ -mercaptan (MARCKWALD), 1892, A., 1328.  
*p*-Tolylglyoxylic acid (v. BUCHKA and IRISH), 1887, A., 826; (CLAUS and KROSEBERG), 1887, A., 948; (v. BUCHKA), 1887, A., 949.  
 Tolylglyoxylic aldehyde (CLAUS), 1890, A., 769.  
*p*-Tolyhexyldihydrotolutriazine (GOLDSCHMIDT and POLTZER), 1891, A., 842.  
*o*-Tolyhydantoin (EHRlich), 1883, A., 1106.

(*Tolyl compounds Me=1.*)  
 $\gamma$ -Tolyhydantoin (QUENDA), 1892, A., 828.  
*p*-Tolyldiazidoacetone (RASCHEN), 1887, A., 956.  
*p*-Tolyldiazidocamphoric acid (CHAPLIN), 1892, A., 1481.  
 Tolyldiazidopyruvic acids, *o*- and *p*- (RASCHEN), 1887, A., 956.  
*m*-Tolyldiazine (v. BUCHKA and SCHACHTEBECK), 1889, A., 702.  
*p*-Tolyldiazine, action of chloroform and alcoholic potash on (RUHEMANN), 1889, T., 247.  
 sulphonation of (GALLINEK and v. RICHTER), 1886, A., 237.  
 phosphenite (MICHAELIS and OSTER), 1892, A., 1325.  
 Tolyldiazinedisulphonic acid (RICHTER), 1886, A., 152.  
 Tolyldiazine-*o* sulphonic acid (BRACKETT and HAYES), 1888, A., 279.  
*p*-Tolyldiazine-5-sulphonic acid, 2-nitro- (LIMPRICHT), 1885, A., 1216; (FOTH), 1886, A., 153.  
 Tolyldiazinesulphonic acids, *o*- and *p*- (LIMPRICHT), 1885, A., 1216.  
 action of concentrated sulphuric acid on (SCHNEIDER), 1887, A., 146.  
*p*-Tolyldiazo-*p*-cresetol (NÖLTING and WERNER), 1891, A., 214.  
*o*-Tolyldiazo-*p*-cresol and *p*-tolyldiazo-*o*-cresol (NÖLTING and WERNER), 1891, A., 213.  
*p*-Tolyldiazone (JAPP and KLINGEMANN), 1888, T., 544.  
 thionyl- (MICHAELIS and RUHL), 1890, A., 617; 1892, A., 1324.  
*p*-Tolyldiazophenetol (NÖLTING and WERNER), 1891, A., 212.  
 Tolyldiazonepyruvic acids, action of heat on (JAPP and KLINGEMANN), 1888, T., 543.  
*p*-Tolyldiazotolyl-mono- and -di-thiobiazolone (FREUND), 1892, A., 512.  
*p*-Tolyldihydroxyethylamine (SCHREIBER), 1891, A., 552.  
*p*-Tolylic acetate, diiodo- (SCHALL and DRALLE), 1885, A., 146.  
 Tolylic *o*-acetates, *o*-, *m*- and *p*- (HEIBER), 1892, A., 308.  
*p*-Tolylic benzoate, dibromo- and diiodo- (SCHALL and DRALLE), 1885, A., 146.  
 Tolylic dichlorides, isocyno-, *o*- and *p*- (NEF), 1892, A., 1441.  
 mercuric chlorides, *o*-, *m*- and *p*- (MICHAELIS and GENZKEN), 1884, A., 146.

(Tolyl compounds Me=1.)

*p*-Tolyl cinnamate, and the action of heat on (ANSCHÜTZ), 1885, T., 898; A., 1064.

Tolyl cyanate, nitro- (GATTERMANN and CANTZLER), 1892, A., 833.

cyanates, polymerisation products of (FRENTZEL), 1888, A., 454.

*m*-Tolyl isocyanate (HEILMANN), 1891, A., 201.

Tolyl isocyanides, *o*- and *p*- (NEF), 1892, A., 1441.

cyanurates, *o*- and *p*- (FRENTZEL), 1888, A., 454.

*p*-Tolyl diphenylcarbamate (LELLMANN and BENZ), 1891, A., 1215.

Tolyl ethylxanthates, *o*-, *m*- and *p*- (LEUCKART), 1890, A., 603.

*p*-Tolyl fumarate and action of heat on (ANSCHÜTZ and WIRTZ), 1885, T., 901; A., 1064.

laurate, myristate, palmitate and stearate (KRAFFT and BÜRGER), 1884, A., 1125.

Tolyl phenylcarbamates, *o*- and *p*- (LEUCKART), 1890, A., 760.

*p*-Tolyl phenylmethylcarbamate (LELLMANN and BENZ), 1891, A., 1215.

*o*-Tolyl phosphate, *dichloro*- (STUART), 1888, T., 403; P., 24.

*p*-Tolyl phosphate (RAPP), 1884, A., 1338.

Tolyl phosphates, nitration of (RAPP), 1884, A., 1337.

sulphide (PURGOTTI), 1890, A., 1420.

*disulphide*, sulpho- (OTTO and TRÖGER), 1891, A., 924.

*tetrasulphide* (OTTO), 1887, A., 923.

*p*-Tolyl *s*-dithiocarbonate (LEUCKART), 1890, A., 603.

Tolyl thiocyanates, *o*- and *p*- (THURNAUER), 1890, A., 749.

*o*-Tolyl *o*-tolylcarbamate (GATTERMANN and CANTZLER), 1892, A., 832.

*o*-Tolyl- $\beta$ -imidobutyric acid (PAWLEWSKI), 1889, A., 1171.

Tolyl- $\beta$ -imidobutyric acids, *o*- and *p*-, synthesis of (KNORR), 1884, A., 1198.

Tolylimidocarbonyl chloride (NEF), 1892, A., 1441.

*o*-Tolylimidodiacetamide (BISCHOFF and HAUSDÖRFER), 1892, A., 1335.

*o*-Tolylimidodiacetic acid (BISCHOFF and HAUSDÖRFER), 1890, A., 1285.

ammonium salt of (BISCHOFF and HAUSDÖRFER), 1892, A., 1335.

*p*-Tolylimidodiacetic acid (BISCHOFF and HAUSDÖRFER), 1890, A., 1285; 1892, A., 1336.

(Tolyl compounds Me=1.)

*p*-Tolylimidodiacetic ditoluidide (BISCHOFF and HAUSDÖRFER), 1892, A., 1336.

*o*-Tolylimidodiacetamide (BISCHOFF and HAUSDÖRFER), 1892, A., 1335.

Tolylimidodiphenylethyl alcohols (*o*- and *p*-tolilbenzoins) (BANDROWSKI), 1889, A., 147.

*p*-Tolylimidomethylene ethylene *disulphide* (MIOLATI), 1891, A., 895.

*o*-Tolylindigo (HEUMANN), 1891, A., 837.

*p*-Tolylimidomethylsulphone (OTTO), 1888, A., 482.

*p*-Tolylketodihydroquinazoline (PAAL and BUSCH), 1890, A., 73.

Tolylketone aldehyde (*tolylglyoxylic aldehyde*) (CLAUS), 1890, A., 769.

*p*-Tolylketotetrahydroquinazoline (BUSCH), 1892, A., 1496.

Tolylmethylhydrophenotriazine (GOLDSCHMIDT and POLTZER), 1891, A., 841.

2'-*p*-Tolylmethyl-3'-ethylidihydrophenotriazine (GOLDSCHMIDT and POLTZER), 1891, A., 842.

*p*-Tolyl-*p*-methyl- $\psi$ -isatin, derivatives of (DUISBERG), 1885, A., 544.

Tolylmethylmethenyldiamine (FISCHER), 1889, A., 731.

1-*m*-Tolyl-2-*m*-methylphenyl-3-methylpyrazolone (1:2-*di-m*-tolyl-3-methylpyrazolone) (v. PERGER), 1886, A., 1046.

*p*-Tolyl- $\alpha$ -methylphthalimide (NIEMEN-TOWSKI), 1892, A., 608.

*o*-Tolylmethylpropylene- $\psi$ -thiocarbamide (PRAGER), 1890, A., 160.

1-*o*- and *p*-Tolyl-3-methylpyrazolone (KNORR), 1884, A., 1153.

1-*p*-Tolyl-3-methylpyrazolone-4-*p*-tolylhydrazone (v. BUCHKA and SPRAGUE), 1890, A., 29; (SPRAGUE), 1891, T., 340.

*p*-Tolylmethylsulphone (OTTO), 1885, A., 537.

*mono*- and *di*-chloro- (OTTO), 1890, A., 380.

Tolylmethylthiocarbamides, *o*- and *p*- (DIXON), 1889, T., 620.

*o*-Tolylmethylthiohydantoin (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.

*o*-Tolyl- $\alpha$ - and - $\beta$ -naphthylamines (FRIEDLÄNDER), 1884, A., 80.

*p*-Tolyl- $\alpha$ -naphthylamine (FRIEDLÄNDER), 1884, A., 80.

*p*-Tolyl- $\beta$ -naphthylamine (FRIEDLÄNDER), 1884, A., 80; (WITT), 1887, A., 592.

(Tolyl compounds  $Me=1$ .)

- Tolynaphthylenediamine** (FISCHER), 1892, A., 1476.
- p*-Tolyl-*o*-naphthylenediamine and its anhydro- and thio-derivatives (FISCHER), 1892, A., 1478.
- Tolynaphthylsulphides** (BOURGEOIS), 1891, A., 1238.
- m*-Tolylnitromethane (HEILMANN), 1891, A., 201.
- Tolynitrotoluenesulphazide**, nitro- (LIMPRICHT), 1887, A., 723.
- Tolyoctane**, amido- (*tolyctylamine*) and its derivatives (BERAN), 1885, A., 524.
- p*-Tolylosazoneglyoxalcarboxylic acid (NASTVOGEL), 1889, A., 238.
- Tolyloxamethane**, amido-, and nitro-. See Ethylic amido- and nitro-tolyl-oxamates.
- o*-Tolyloxamic acid (MAUTHNER and SUIDA), 1886, A., 886.
- p*-Tolyloxamic acid, 2-amido- (SCHIFF and VANNI), 1890, A., 1125; 1891, A., 833; 1892, A., 599, 601, 1208.
- 3-nitro-, and its derivatives (HINSBERG), 1883, A., 323; (SCHIFF and VANNI), 1892, A., 601.
- p*-Tolyloxamide, nitro- (SCHIFF and VANNI), 1892, A., 601.
- p*-Tolyl-oxamide and -oxanilide, 2-amido- (SCHIFF and VANNI), 1891, A., 834; 1892, A., 602.
- Tolyloxamides**, *o*-, *m*- and *p*- (BLADIN), 1884, A., 1142.
- Tolyloxy-ethylamine**, -ethylaniline, -ethylcarbamide and -ethylphthalamic acid (SCHREIBER), 1891, A., 552.
- p*-Tolyloxyethylphthalimide, and its dinitro-derivative (SCHREIBER), 1891, A., 552.
- Tolypentane** (ESSNER and GOSSIN), 1885, A., 517.
- Tolylphenyl**-. See Phenyltolyl-.
- o*-Tolylphthalamic acid and its methyl derivatives (KUCHARA), 1887, A., 586.
- p*-Tolylphthalide (GRESLY), 1886, A., 1028.
- o*-Tolylphthalimide (PIUTTI), 1884, A., 453; (KUCHARA), 1887, A., 586.
- preparation of (HALLER), 1892, A., 1204.
- 1-*p*-Tolylpiperidine (LELLMANN and JUST), 1891, A., 1244.
- p*-Tolylpropaldehyde and its derivatives (v. RICHTER and SCHÜCHNER), 1884, A., 1342.
- α*-*p*-Tolylpropaldehyde (v. MILLER and ROHDE), 1890, A., 898; (ERRERA), 1891, A., 1020.

(Tolyl compounds  $Me=1$ .)

- m*-Tolylpropionic acid (MÜLLER), 1887, A., 725.
- o*-Tolylpropionic acid (*o*-methylhydrocinnamic acid) (YOUNG), 1892, A., 1221.
- m*-Tolylpropionic acid [m.p. 125°] (EFFRONT), 1885, A., 152.
- nitro- (EFFRONT), 1885, A., 152.
- m*-Tolylpropionic acid (*m*-methylhydrocinnamic acid) [m.p. 40°] (MÜLLER), 1887, A., 724.
- p*-Tolylpropionic acid (*p*-methylhydrocinnamic acid) (KRÖBER), 1890, A., 969.
- α*-*p*-Tolylpropionic acid (*methylhydro-tropic acid*) (v. MILLER and ROHDE), 1890, A., 978, 1140; (ERRERA), 1891, A., 1021; (ERRERA and BALDRACCO), 1892, A., 605.
- m*-diamido- and *m*-dinitro- (ERRERA and BALDRACCO), 1892, A., 606.
- Tolylpropionic acid**. See also Methylhydrocinnamic acid.
- α*-*p*-Tolylpropionitrile (ERRERA), 1891, A., 1021.
- α*-*p*-Tolylpropylene (ERRERA), 1885, A., 772.
- β*-*p*-Tolylpropylene (ERRERA), 1891, A., 1021.
- Tolylpropylene-ψ-semithiocarbazides**, *o*- and *p*- (AVENARIUS), 1891, A., 550.
- o*-Tolylpropylene-ψ-thiocarbamide (PRAGER), 1890, A., 160.
- α*-*p*-Tolylpropylic alcohol (ERRERA), 1891, A., 1021.
- p*-Tolyl-*n*- and *iso*-prepylnitrosamines (HORI and MORLEY), 1891, T., 34.
- 1-Tolylpyrazoles, *o*- and *p*- (BALBIANO), 1889, A., 1216.
- 1-Tolylpyrazoleethylammonium iodides, *o*- and *p*- (BALBIANO), 1889, A., 1216.
- 1-Tolylpyrazolines, *o*- and *p*- (BALBIANO), 1889, A., 1216.
- p*-Tolylpyrrolinedibenzoic acid (BAUMANN), 1887, A., 736.
- 3'-*m*-Tolylisoquinoline (HEILMANN), 1891, A., 202.
- 1'-chloro- (HEILMANN), 1890, A., 625; 1891, A., 202.
- 3'-*p*-Tolylisoquinoline and 1'-chloro- (RUHEMANN), 1892, A., 474.
- p*-Tolylrosinduline and *iso*-*p*-tolylrosinduline (FISCHER and HEPP), 1890, A., 909.
- Tolylsemicarbazides**, *o*- and *p*- (PINNER), 1888, A., 687.
- Tolylstibine**, and its derivatives (MICHAELIS and GENZKEN), 1884, A., 1135.



(Tolyl compounds Me=1.)

Tolylsulphone (PURGOTTI), 1890, A., 1420.

*p*-Tolylsulphoneacetic acid (OTTO), 1885, A., 537.*p*-Tolylsulphoneacetone (R. and W. OTTO), 1888, A., 282.*p*-Tolylsulphone-ethyl and -ethylamine derivatives (OTTO and DAMKÖHLER), 1885, A., 538.*a-p*-Tolylsulphonepropionic acid (OTTO), 1890, A., 382.

preparation of the ethyl salts of (OTTO), 1885, A., 537.

Tolylsulphophenylbenzenylamidine (WALLACH), 1883, A., 48.

*p*-Tolyltetrahydroquinazoline (PAAL and BUSCH), 1890, A., 73.*p*-Tolyltetrahydrothioquinazoline (BUSCH), 1892, A., 1496.Tolylthiazolines,  $\mu$ -*o*-, and  $\mu$ -*p*- (GABRIEL and HEYMANN), 1891, A., 701.

Tolylthiobiuret, and its acetyl-derivative (TURSINI), 1884, A., 1140.

Tolyl*di*thiocarbamic acids, salts of (LOSANITSCH), 1892, A., 56.*m*-Tolylthiocarbamide, *di-o*-chloro- (KOCK), 1887, A., 810.*p*-Tolylthiocarbamide, action of acetic anhydride on (WERNER), 1891, T., 403.

2-nitro- (STEUDEMANN), 1884, A., 307.

thio- (TRUHLAR), 1887, A., 473.

Tolylthiocarbazinic *o*- and *p*-tolylhydrazides, *o*- and *p*- (FREUND), 1892, A., 511.*o*-Tolylthiocarbimide, preparation of (WERNER), 1891, T., 402.

action of aldehyde-ammonia on (DIXON), 1888, T., 418.

action of, on thialdine (DIXON), 1889, T., 626.

*m*-Tolylthiocarbimide, preparation of (WERNER), 1891, T., 403.*p*-Tolylthiocarbimide, preparation of (WERNER), 1891, T., 404.

oxide (HELMERS), 1887, A., 581.

nitro- (STEUDEMANN), 1884, A., 307.

Tolyl*di*thiocarbimide (HOBBS), 1888, A., 708.*o*-Tolylthiocarbimide-aldehyde-ammonia (DIXON), 1892, T., 520.*o*-Tolylthiohydantoin (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.*p*-Tolylthiourethane, *o*-nitro- (STEUDEMANN), 1884, A., 307.*o*-Tolyltoluenesulphazide (LIMPRICHT), 1887, A., 723.

(Tolyl compounds Me=1.)

1:4-*o*-Tolyl-*p*-tolyl diketopyrazine, 3:6-dichloro- (ABENIUS), 1890, A., 526.*p*-Tolyl-2:4-tolylenediamine (*amido-ditolylamine*) (FISCHER and SIEDER), 1891, A., 434.*p*-Tolyl-3:4-tolylenediamine, formation of, from *p*-ditolylhydrazine, and its derivatives (TÄUBER), 1892, A., 853.*p*-Tolyl-*o*-tolyleneguanidine (KELLER), 1891, A., 1470.Tolyl-*p*- and -*o*-tolylsemithiocarbazides, *o*- and *p*- (DIXON), 1892, T., 1015.Tolyltrimethylphosphonium *periodide* (CZIMATIS), 1883, A., 57.Tolylurazoles, *o*- and *p*- (PINNER), 1888, A., 687.

Tolylurethane, amido- (SCHIFF and VANNI), 1892, A., 600; (SCHIFF), 1892, A., 1203.

4-nitro- (SCHIFF and VANNI), 1892, A., 601.

Tomato, cooked, composition of (WILLIAMS), 1892, T., 227.

Tomatoes, composition and anatomical structure of the fruit of (BRIOSI and GIGLI), 1891, A., 955; (PASSERINI), 1891, A., 956.

Tonometer, differential (BRÉMER), 1888, A., 402.

Topaz, Brazilian, liquid inclusions in (v. NORDENSKIÖLD), 1886, A., 674.

from Maine, U.S. (BRADBURY), 1884, A., 27; (CLARKE and DILLER), 1886, A., 213.

from Pike's Peak, Colorado (CROSS and HILLEBRAND), 1883, A., 1065.

from Tasmania (v. GRODDECK), 1886, A., 603.

from the Thomas range, Utah (ALLING), 1887, A., 453.

in rhyolite (CROSS), 1886, A., 991.

pyroelectricity of (FRIEDEL and CURIE), 1885, A., 469.

See also Aluminium silicofluorides.

Torpedo, chemical studies on (WEYL), 1887, A., 1128.

Torpedo-mucin (WEYL), 1887, A., 1128.

Tortoise, urine of the (MILLS), 1887, A., 170.

Tourmaline from Bohemia (KATZER), 1888, A., 923.

blue, from Chapey (MICHEL-LÉVY), 1886, A., 214.

from Japan (WADA), 1885, A., 222.

from New South Wales (LIVERSIDGE), 1886, A., 774.

black, from North Carolina (HIDDEN and DES CLOIZEAUX), 1887, A., 118.

- Tourmaline** from Schüttenhofen, constitution and colour of (SCHARIZER), 1889, A., 764.  
 red, from Siberia (PRENDEL), 1892, A., 573.  
 from Tasmania (v. GRODDECK), 1886, A., 603.  
 chromic, in the Urals (COSSA and ARZRUNI), 1883, A., 444.  
 composition of (RIGGS), 1888, A., 659; (JANNASCH and KALB), 1889, A., 472; (RAMMELSBURG; KALB), 1891, A., 24.  
 formula of (WÜLFING), 1889, A., 765; (KENNGOTT), 1892, A., 1410.  
 effect of heat on the optical properties of (DOELTER), 1885, A., 26.  
 thermal conductivity of (STENGER), 1885, A., 5.
- Tourmaline-bearing copper ores** from Chili (v. GRODDECK), 1890, A., 114.
- Tourmalinic-pegmatite** from Ričan (KATZER), 1889, A., 357.
- Toxalbumin** secreted by the microbe of blennorrhagic pus (HUGOUNENQ and ERAUD), 1891, A., 1521.
- Toxicological investigations** (HESS and LUCHSINGER), 1885, A., 578; (LECCO), 1886, A., 743; 1891, A., 864; (MARINO-ZUCO), 1889, A., 653; (CIOTTO and SPICA), 1891, A., 772.  
 See also Physiological action and Poisoning.  
 and chemical relations of some fungi (BÖHM), 1885, A., 1008.
- Trachyte** of Gleichenberg, action of water containing carbonic acid on (CLAR), 1884, A., 569.
- Trachytes** of the Eperies-Tokay mountains (ROTH), 1886, A., 131.
- Trachyte-dolerites** of the Vogelsberg (LEDROIT), 1887, A., 904.
- Trachyte-region** of the Rhodope (PELZ and HUSSAK), 1884, A., 414.
- Transfusion** of mixtures of blood and salt solution (MARSHALL), 1891, A., 347.
- Transition point** (ROOZEBOOM), 1888, A., 1147.  
 and point of fusion (VAN'T HOFF), 1888, A., 404.  
 points, triple and multiple points regarded as (ROOZEBOOM), 1888, A., 1151.
- Translocation**, diastase of (BROWN and MORRIS), 1890, T., 509.
- Transpiration** (CHABRIÉ), 1892, A., 1267.  
 and assimilation, relation between the, produced by chlorophyll (JUMELLE), 1890, A., 190.
- Transportation** of solids in a vacuum by the vapours of metals (MORSE and WHITE), 1892, A., 1886.
- Trees.** See Agricultural Chemistry.
- Trehalose.** See Carbohydrates.
- Tremolite** (*grammatite*) from Nordmarken (FLINK), 1889, A., 221.  
 chemical composition of (BERWERTH), 1886, A., 28.  
 crystallographical examination of (PRIMICS), 1885, A., 733.
- Triacetic acid**,  $\delta$ -lactone of, and its reactions (COLLIE), 1891, T., 607; P., 114.  
 preparation of pyridine derivatives from (COLLIE and MYERS), 1892, T., 721; P., 131.
- Triacetin** (*triacetyl glycerol*) (SEELIG), 1892, A., 289.  
 preparation of (BÖTTINGER), 1891, A., 1183.
- Triacetonealkamine** (*hydroxytetramethylhexahydropyridine*) (FISCHER), 1883, A., 1153.  
 preparation of (FISCHER), 1884, A., 1290.
- $\psi$ -**Triacetonealkamine** (FISCHER), 1884, A., 1290.
- Triacetoneamine** (FISCHER), 1884, A., 1290.  
 action of phosphorus pentachloride and oxychloride on (FISCHER), 1883, A., 790.  
 homologues of (FISCHER), 1884, A., 1290.
- Triacetone methylalkamine** and its salts (FISCHER), 1883, A., 1153.
- Triacetone trisulphone** (BAUMANN and FROMM), 1890, A., 26.
- Triacetone** (*tetramethyltetrahydropyridine*) and its salts (FISCHER), 1883, A., 1153; 1884, A., 1290.  
 nitroso- (FISCHER), 1884, A., 1290.
- $\psi$ -**Triacetone** (FISCHER), 1884, A., 1291.
- Triacetoxypentane** (PRUNIER), 1884, A., 1284.
- Triacetyldiamidohydroxynaphthyl-phenyl** (MELDOLA and MORGAN), 1889, T., 124.
- Triacetyldiamido- $\alpha$ -naphthol** and its nitro-derivative (MEERSON), 1888, A., 713.
- Triacetyldiamido- $\beta$ -naphthol** (LOEWE), 1890, A., 1424.
- Triacetyltriamidophenol** (BAMBERGER), 1884, A., 309.
- Triacetyldiamidothymol** (MAZZARA), 1891, A., 188.
- 1:3:5-Triacetylbenzene** (CLAISEN and STYLOS), 1888, A., 671.

- Triacetyl*dibromobrazilein*** (SCHALL and DRALLE), 1890, A., 997.
- Triacetyl*ethenyltetramidotoluene*** (NIE-TZKI and RÖSEL), 1891, A., 192.
- Triacetyl*formamidil*** (PINNER), 1884, A., 723.
- Triacetyl*gallamide*** (MARX), 1891, A., 1220.
- Triacetyl*gentisein*** (v. KOSTANECKI), 1891, A., 1244, 1386.
- Triacetyl*glycerol***. See *Triacetin*.
- Triacetyl*ic cyanurate*** (PONOMAREFF), 1886, A., 217.
- Triacetyl*leucaniline*** and *-paraleucaniline* (RENOUF), 1883, A., 981.
- Triacetyl*moradin*** (ARATA and CANZONERI), 1890, A., 405.
- Triacetyl- and *isotriacetyl-quinide*** (ERWIG and KOENIGS), 1889, A., 991.
- 3-Trialkylpyridines**, oxidation of (ALTAR), 1887, A., 378.
- Triallyl*amine***, action of sulphuric acid on (LIEBERMANN and HAGEN), 1883, A., 1086.
- Triallyl*oxymethane***, preparation of (BEILSTEIN and WIEGAND), 1885, A., 740.
- Triammonium salts**. See under *Ammonium*.
- Tri*isoamylbismuthine*** (MARQUARDT), 1888, A., 1067.
- Trianhydropyruvic acid**, phosphorus salt of (MESSINGER and ENGELS), 1889, A., 36.
- Trianilidobenzene**, bromo*dinitro-* (JACKSON and BANCROFT), 1890, A., 982.  
*dinitro-* (PALMER and JACKSON), 1890, A., 248.  
*trinitro-* (JACKSON and WING), 1888, A., 1276.
- Trianilidonaphthalene** (FISCHER and HEPP), 1890, A., 911.
- Trianiline disilicotetrafluoride** (COMERY and JACKSON), 1888, A., 942.
- Trianisin** (FRITSCH), 1891, A., 708.
- Trianisylarsine** (MICHAELIS and WEITZ), 1887, A., 367.
- Triarabinan-tri- and -tetra-galactan-geddic acids** (O'SULLIVAN), 1891, T., 1037, 1071.
- Triauramine** (RASCHIG), 1887, A., 112.
- Triazidoacetamide** (CURTIUS and LANG), 1889, A., 370.
- Triazine derivatives**, synthesis of (MELDOLA), 1890, T., 328; P., 37.  
nomenclature of (MELDOLA and FORSTER), 1891, T., 679.  
substituted, preparation of (MELDOLA and FORSTER), 1891, T., 679.  
nitro-, reduction of (MELDOLA and FORSTER), 1891, T., 701.
- Triazine-series** (MELDOLA and FORSTER), 1891, T., 678; P., 123.
- Triazo-compounds**. See under *Azo-*.
- Triazole** (ANDREOCCHI), 1892, A., 636; (BLADIN), 1892, A., 735.  
derivatives of (BLADIN), 1892, A., 637.
- Triazoles**, nomenclature of (KEHRMANN and MESSINGER), 1892, A., 889.
- Triazolecarboxylic acid** (ANDREOCCHI), 1892, A., 636; (BLADIN), 1892, A., 735.
- Triazole-series**, amidoximes and azoximes of (BLADIN), 1889, A., 977.
- Tribenzamide** (CURTIUS), 1891, A., 58.
- Tribenzamidophloroglucinol**, synthesis of (RÜGHEIMER), 1889, A., 249.
- Tribenzoin** (VAN ROMBURGH), 1883, A., 63.
- Tribenzoin** (FRITSCH), 1891, A., 708.
- Tribenzoyl*triamidobenzene*** (HINSBERG and v. UDRÁNSZKY), 1890, A., 370.
- Tribenzoyl*diamido-β-naphthol*** (LOEW), 1890, A., 1424.
- o-Tribenzoylbenzene** (HAUSMANN), 1889, A., 1172.
- Tribenzoyl*isodulcitol*** (RAYMAN), 1887, A., 907.
- Tribenzoyl*glycerol*** (SKRAUP), 1889, A., 1152.
- Tribenzoyl-*β*-hydrojuglone** (MYLIUS), 1886, A., 69.
- Tribenzoylmesitylene** (LOUISE), 1884, A., 1000.
- Tribenzoylmethane** (v. BAEYER and PERKIN), 1884, A., 64.  
preparation and properties of (PERKIN), 1885, T., 252.
- 1:2:3-Tribenzoylpropane** (EMERY), 1891, A., 680.
- Tribenzoylpyrogallol** (SKRAUP), 1889, A., 1152.
- Tribenzylamine** (LEUCKART), 1885, A., 1215.  
boiling point of (SCHWEITZER), 1891, A., 1240.  
action of bromine on (WALLACH), 1891, A., 189.  
action of sodium on (JACKSON and WING), 1886, A., 616.  
derivatives of (MARQUARDT), 1886, A., 615.
- Tribenzylarsine**, and its derivatives (MICHAELIS and PAETOW), 1885, A., 527.
- Tribenzylcarbamide** (HAMMERICH), 1892, A., 1083.
- Tribenzylethenyltrisulphone** (LAVES), 1892, A., 613.
- Tribenzylethylammonium iodide** (MARQUARDT), 1886, A., 615.



- Tribenzylethylphosphonium chloride**, action of heat on (COLLIE), 1888, T., 725.
- Tribenzylhomo-*o*-phthalimide** (PULVERMACHER), 1887, A., 1112.
- α*-Tribenzylhydroxylamine** (WALDER), 1886, A., 796.
- β*-Tribenzylhydroxylamine** (BECKMANN), 1889, A., 608; (BEHREND and LEUCHS), 1889, A., 703.
- Tribenzyllic phosphate** (LOSSEN and KÖHLER), 1891, A., 1015.
- Tribenzyllic *o*-thioacetate** (LAVES), 1892, A., 612.
- Tribenzylidenediamine**. See Hydrobenzamide.
- Tribenzylidenemannitol** (MEUNIER), 1888, A., 1049.
- Tribenzylmethylammonium iodide and hydroxide** (MARQUARDT), 1886, A., 615.
- Tribenzylphosphine** (LETTS and BLAKE), 1890, A., 767.  
oxide, identity of, with Hofmann's dibenzylphosphine (LETTS and BLAKE), 1890, A., 492.  
action of chlorine, of nitric acid and of sulphuric acid on (COLLIE), 1889, T., 225.  
some compounds of, and trinitro- (COLLIE), 1889, T., 223; P., 45.
- Tribenzylisopropylammonium iodide** (MARQUARDT), 1886, A., 615.
- Tribenzylpyridine** (RÜGHEIMER), 1892, A., 1365.
- Tribenzyltriphenylguanidine** (MANNS), 1889, A., 261.
- Tribenzyltrisulphonephenylmethane** (LAVES), 1892, A., 613.
- Tribrassidin** (REIMER), 1887, A., 233.  
heats of combustion and formation of (STOHMANN and LANGBEIN), 1891, A., 11.
- Tribromhydrin** (1:2:3-*tribromopropane*), formation of (KRONSTEIN), 1892, A., 577.
- Triisobutoxytribenzaldehyde** (BAUMANN and FROMM), 1891, A., 1051.
- Triisobutylamine**, preparation of (MALBOT), 1887, A., 356.  
platinichloride (MALBOT), 1887, A., 461.
- tert*.-Tributylbenzene** (SENKOWSKI), 1890, A., 1297.
- Triisobutylbismuthine** (MARQUARDT), 1888, A., 1066.
- Triisobutylene** (PUCHOT), 1884, A., 167.  
heat of combustion of (MALBOT), 1890, A., 320.  
*dichloride*, *dichloro*- (MALBOT and GENTIL), 1889, A., 843.
- "Triisobutylphenylguanidine"** (PAHL), 1884, A., 1010.
- Tricalcium phosphate**. See under Calcium phosphate.
- Tricaprylamine**. See Trioctylamine.
- Tricarballamide** [m.p. 205—207°] (EMERY), 1890, A., 133.  
[m.p. 218°] (DÄUMICHEN), 1889, A., 239.
- Tricarballyl-amidimide and -anilic acid** (DÄUMICHEN), 1889, A., 238.
- Tricarballylanilide** (EMERY), 1890, A., 133.
- Tricarballyl-*p*-ditolyl and -*p*-ditoluidic acid** (DÄUMICHEN), 1889, A., 238.
- Tricarballylic acid and its derivatives** (BISCHOFF), 1883, A., 46; (DÄUMICHEN), 1889, A., 238; (EMERY), 1890, A., 133; 1891, A., 680.  
synthesis of (EMERY), 1891, A., 423.  
heat of combustion of (LUGININ), 1889, A., 668.  
dissociation constant of (WALKER), 1892, T., 707.  
salts of (GUINOCHE), 1890, A., 480.  
potassium salts of, and their heats of formation (MASSOL), 1892, A., 762.  
*di*bromo- (GUINOCHE), 1890, A., 594.
- Tricarballylic acids**, attempts to prepare alkyl-substituted (BISCHOFF and V. KUHMBERG), 1890, A., 747.
- Tricarballylic chloride** (EMERY), 1890, A., 133.
- Tricarballyl-phenylhydrazidic acid and -*o*-toluic acid** (EMERY), 1891, A., 680.
- Tricarballyl-*p*-toluic acid and -*p*-toluidide** (DÄUMICHEN), 1889, A., 238.
- Tricarbanilidohydroxyhydrazobenzene** (GOLDSCHMIDT and ROSELI), 1890, A., 615.
- Tricarbanilidophloroglucinol** (GOLDSCHMIDT and MEISSLER), 1890, A., 500.
- Tricarboxypyridinic acid**. See Pyridine-2:4:6-tricarboxylic acid.
- Trichlorhydrin** (1:2:3-*trichloropropane*), action of triethylamine on (REBOUL), 1883, A., 307.
- Tricinnametetra-ureide** (BIGINELLI), 1892, A., 57.
- Tri-*p*-cresotin** (FRITSCH), 1891, A., 708.
- Tricresyl**-. See Tritolyl-.
- Tricyanides** (KRAFFT and HANSEN), 1889, A., 696; (OTTO), 1889, A., 951; (KRAFFT and KOENIG), 1890, A., 1252.  
formation of, from nitriles and acid chlorides (EITNER and KRAFFT), 1892, A., 1183.
- Tricyanuramide** (SCHNEIDER), 1885, A., 1193.

- Tricyclic systems**, reduction of (BAMBERGER), 1891, A., 1258.
- Tridecylduodecylcarbamide**, **tridecylamide** and **tridecylamine** and its salts and **tridecynitrile** (LUTZ), 1886, A., 685.
- Tridecylutidine** and **tridecylutidine-dicarboxylic acid hydrochloride** (KRAFFT and MAI), 1889, A., 1017.
- 2'-Tridecylquinoline** (KRAFFT), 1890, A., 1234.
- Tri-*p*-diphenylmethaneguanidine** (*tribenzyltriphenylguanidine*) (MANNS), 1889, A., 261.
- Tridymite** (MALLARD), 1890, A., 1070.  
preparation of (MEUNIER), 1891, A., 22.  
artificial production of (V. CHRUST-SCHOFF), 1887, A., 559; (BRUHNS), 1890, A., 112.  
expansion of (LE CHATELIER), 1890, A., 1371.  
See also **Silicon dioxide**.
- Trierucin** (REIMER and WILL), 1887, A., 1030.  
heats of combustion and formation of (STOHMANN and LANGBEIN), 1891, A., 11.
- Triethoxybenzaldehyde** (WILL), 1884, A., 68.
- 1:3:5-Triethoxybenzene** (WILL and ALBRECHT), 1884, A., 1336.
- Triethoxybenzoic acid** [m.p. 100.5°] (WILL and JUNG), 1884, A., 1043; (WILL and ALBRECHT), 1884, A., 1335; (JUNG), 1886, A., 558.  
[m.p. 134°] (WILL), 1884, A., 68.
- Triethoxybutane** (NEWBURY and CALKIN), 1891, A., 285.
- Triethoxyphenylpropionic acid** [m.p. 77°] (WILL), 1884, A., 68.  
[m.p. 85°] (WILL and JUNG), 1884, A., 1043; (JUNG), 1886, A., 558.
- Triethoxypropane** (NEWBURY and CHAMOT), 1891, A., 285.
- Triethoxytriphenodioxazine** (KINZEL), 1892, A., 158.
- Triethylæsculetic acids**,  $\alpha$ - and  $\beta$ -, and their ethyl salts (WILL), 1884, A., 68.
- Triethylallylammonium chlorides**,  $\alpha$ - and  $\beta$ -chloro- (REBOUL), 1883, A., 307.
- Triethylamine**, properties of (V. HOFMANN), 1889, A., 688.  
magnetic rotatory power of (PERKIN), 1889, T., 692, 729.  
molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.  
action of, on  $\alpha$ -bromobutyric acid (DUVILLIER), 1888, A., 249.
- Triethylamine**, action of, on diisobutylamine oxalate (COLSON), 1891, A., 377.  
action of, on *s*-trichlorhydrin and on the two dichloropropylenes (REBOUL), 1883, A., 307.  
and ethylic iodide, effect of various solvents on the velocity of reaction between (MENSCHUTKIN), 1890, A., 1366.  
arsenious bromide (LANDAU), 1889, A., 211.  
hydrochloride, magnetic rotatory power of (PERKIN), 1889, T., 715.  
platinotiocyanate (GUARESCHI), 1892, A., 286.
- Triethylammonium bromide**, compound of thiocarbamide with (REYNOLDS), 1891, T., 390.
- Triethylisoamylphosphonium chloride**, action of heat on (COLLIE), 1888, T., 721.
- Triethylbenzenes**, chlorinated (ISTRATI), 1886, A., 231, 343.
- Triethylcarbinol** (*tert.-heptylic alcohol*) (BARATAEFF and SAYTZEFF), 1887, A., 353.
- $\beta$ -Triethyldaphnetic acid**, and its ethylic salt (WILL and JUNG), 1884, A., 1042.
- Triethyldaphnetic acids**,  $\alpha$ - and  $\beta$ - (JUNG), 1886, A., 558.
- 2:4:5-Triethyl-*m*-diazine**, 6-amido- (WACHE), 1889, A., 684.
- Triethylenetetramine** (V. HOFMANN), 1891, A., 414.
- Triethylethenyltrisulphone** (LAVES), 1892, A., 154.
- Triethylgallic acid**, and its salts (WILL and ALBRECHT), 1884, A., 1335.  
amido-, dibromo-, and nitro- (SCHIFFER), 1892, A., 715.
- Triethylhexadecylammonium iodide** (KRAFFT and MOYE), 1889, A., 689.
- Triethylhomo-*o*-phthalimide** (PULVERMACHER), 1887, A., 1111.
- Triethylhydroxylamine** (BEWAD), 1889, A., 112.
- Triethylic aconitoxalate** (CLAISEN and HORI), 1891, A., 424.  
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- Trimethylacetaldehyde** [b.p. 74°—75°] (TISSIER), 1891, A., 998.
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- Trimethylaceto-diethylamide, -dimethylamide and -methylamide** (FRANCHIMONT and KLOBBIE), 1888, A., 1062.
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- Trimethylantracylene (ELBS), 1890, A., 512.
- Trimethylantragaol (WENDE), 1887, A., 593.
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- 1:2:3-Trimethyl-4-benzoic acid (*prehnitic acid*) (JACOBSEN), 1886, A., 695.
- 1:2:3-Trimethyl-5-benzoic acid ( *$\alpha$ -cuminic acid*;  *$\alpha$ -isodurylic acid*) (JACOBSEN), 1883, A., 52.
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- 1:3:5-Trimethylbenzoic acid ( *$\beta$ -cuminic acid*;  *$\beta$ -isodurylic acid*) (JACOBSEN), 1883, A., 52.
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- Trimethylenedicarbamide** (FISCHER and KOCH), 1886, A., 528.
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- $\alpha$ -Trimethylene-1:1-dicarboxylic acid** (*ethylene-malonic acid*; *vinaconic acid*; *vinylmalonic acid*) (FITTIG and ROEDER), 1883, A., 730; 1884, A., 295; (PERKIN), 1884, A., 832, 992; 1885, T., 810; A., 1049; 1886, A., 688; 1887, T., 849; (ROEDER; FITTIG), 1885, A., 653; (BUCHNER), 1890, A., 736.  
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- Trimethylenedinitramine** (FRANCHIMONT and KLOBBIE), 1889, A., 492.
- Trimethylenediphenylcarbamide** (HANSEN), 1887, A., 577.
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- Trimethylenedisulphonic acid**. See 1:3-Propanedisulphonic acid.
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- Trimethylenediurethane** (FISCHER and KOCH), 1886, A., 527.
- Trimethylene-ethenyldiamine** (v. HOFMANN), 1888, A., 1050.
- Trimethyleneimine** (GABRIEL and WEINER), 1888, A., 1293; (LADENBURG and SIEBER), 1890, A., 1394.
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- Trimethylenephenyldiamine** (BALBIANO), 1889, A., 1215; 1890, A., 1244; (GOLDENRING), 1890, A., 977.  
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- Trimethylene-ring**, existence of (PERKIN), 1884, A., 992.
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- Trimethylene-1:1:2:2-tetracarboxylic acid** (GUTHZEIT and DRESSSEL), 1890, A., 879.  
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- Trimethylene-1:1:2:3-tetracarboxylic acid** and its salts (PERKIN), 1884, A., 1300; 1885, T., 823.
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- Trimethylene- $\psi$ -thiocarbamide** (GABRIEL and LAUER), 1890, A., 473; (LAUER), 1890, A., 1090.
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- Trimethylene-1:1:2-tricarboxylic acid** (CONRAD and GUTHZEIT), 1884, A., 992; (PERKIN), 1884, A., 1300. constitution of (MICHAEL), 1887, A., 468.
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- Trimethylenetrinitrosamine** (MAYER), 1889, A., 33.
- Trimethylenetrissulphone** (BAUMANN and CAMPS), 1890, A., 478; (CAMPS), 1892, A., 591. *hexabromo*- and *hexachloro*- (CAMPS), 1892, A., 592.
- Trimethylenic bromide (1:3-dibromopropane)**, action of ammonia on (NIEDERIST), 1883, A., 450. action of, on ethylic sodacetate (PERKIN), 1886, A., 689. action of, on ethylic sodethylacetate (KIPPING and PERKIN), 1890, T., 30. action of, on the sodium compounds of ethylic acetate, benzoylacetate, *p*-nitrobenzoylacetate and acetonedicarboxylate (PERKIN), 1887, T., 702; P., 55; A., 32. conversion of, into propylene bromide (GUSTAVSON), 1888, A., 240. chlorobromide, action of aromatic amines and amides on (PINKUS), 1892, A., 1491. cyanide (*glutaronitrile*), magnetic rotatory power of (PERKIN), 1889, T., 702. molecular refraction and dispersion of (GLADSTONE), 1891, T., 295. heats of combustion and formation of (BERTHELOT and PETIT), 1889, A., 812. boiling points of (KRAFFT and NOERDLINGER), 1889, A., 690. imido-ethers from (PINNER), 1891, A., 61.
- Trimethylenic iodide** (PERKIN), 1885, A., 495; 1887, T., 12; (HENRY), 1885, A., 736. preparation of (KEPPLER and MEYER), 1892, A., 1062. molecular refraction and dispersion of (GLADSTONE), 1891, T., 295. reaction of, with aniline (BISCHOFF and NASTVOGEL), 1890, A., 1164. phenylimidophenylthiocarbamate (FOERSTER), 1888, A., 946. selenide and selenocyanate (HAGELBERG), 1890, A., 950. sulphide (HAGELBERG), 1890, A., 949. tetrasulphide (BAUMANN), 1890, A., 1093. thiocyanate (HAGELBERG), 1890, A., 949.
- Trimethylethylammonium salts**, *di*- and *tri*-bromo- (BODE), 1892, A., 806. salts,  $\beta$ -iodo- (SCHMIDT), 1892, A., 808. chloride, action of heat on (COLLIE and SCHRYVER), 1890, T., 768. *heptioidide* (GEUTHER), 1887, A., 910.
- Trimethylethylbenzenesulphonic acids** (TÖHL and v. KARCHOWSKI), 1892, A., 990.
- Trimethylethylene**. See  $\beta$ -isoAmylene.
- Trimethylethylic alcohol** (*amylic alcohol*) (TISSIER), 1891, A., 998.
- Trimethylethylic trimethylacetate** (TISSIER), 1891, A., 998.
- Trimethylethylphosphonium chloride**, action of heat on (COLLIE), 1888, T., 717.
- 1:3:3'-Trimethyl-2'-ethylquinoline** (v. MILLER), 1890, A., 1326.
- Trimethylethyltetrahydroquinoline** (v. MILLER), 1890, A., 1327.
- Trimethylglutamide**, and its reduction (MARX), 1891, A., 1218.
- Trimethylgallic acid** (WILL), 1888, A., 1090. nitration of (SCHIFFER), 1892, A., 716.
- Trimethylgallyl alcohol** (MARX), 1891, A., 1219.
- Trimethylglutaric acid** (AUWERS and MEYER), 1890, A., 480.
- Trimethylglutaric anhydride** and its  $\alpha$ -bromo-derivative (AUWERS and MEYER), 1890, A., 480.
- Trimethylglyoxaline** (v. PECHMANN), 1888, A., 812.
- Trimethylguanil** (CURATOLO), 1891, A., 539.

- Trimethylhexadecylbenzene** (KRAFFT and GÖTTIG), 1889, A., 130.
- Trimethylhexahydropyridine.** See Trimethylpiperidine.
- Trimethylhexenylammonium iodide** (MERLING), 1891, A., 1507.
- Trimethylhomophthalimide** and its derivatives (GABRIEL), 1887, A., 726.
- Trimethylhydrastylammonium iodide** (FREUND), 1889, A., 1221.
- Trimethylhydroamarine** (CLAUS), 1883, A., 203.
- Trimethylhydroxy-.** See Hydroxy-trimethyl-.
- Trimethyl chloraurophosphite** (LINDER), 1887, A., 227.
- 1:2':3'-Trimethylindole** (WOLFF), 1889, A., 259.
- 3:2':3'-Trimethylindole** (WOLFF), 1889, A., 259.
- 1':2':3'-Trimethylindole** (FISCHER), 1886, A., 806; (DEGEN), 1887, A., 149.
- Trimethylactic acid** (GLÜCKSMANN), 1890, A., 237; 1892, A., 38.
- Trimethyl-leucine**, periodide of, and the action of silver hydroxide on (KÖRNER and MENOZZI), 1884, A., 425.
- Trimethylmelamine** (KLASON), 1886, A., 522.
- Trimethylisomelamine** (v. HOFMANN), 1886, A., 42.
- Trimethylnaphthalene** (MASCHKE), 1887, A., 841.
- Trimethylisooxazole** (DUNSTAN and DYMOND), 1891, T., 413, 429.
- o-Trimethylphenolammonium iodide** (HANTZSCH), 1883, A., 1111.
- Trimethylphenylethyl ketone.** See Propionylmesitylene.
- Trimethylphenylacetic acids**, 2:4:5-, and 2:4:6-, and their amides (CLAUS), 1890, A., 981.
- Trimethyl-p-phenylenediamine** (GRIMAU and LEFÈVRE), 1891, A., 1032.
- 2:4:5-Trimethylphenylglyoxylic acid** (CLAUS), 1890, A., 981.
- Trimethylphenylmethane.** See *tert*-Butylbenzene.
- Trimethylphloroglucinol.** See 1:3:5-Trimethoxybenzene.
- Trimethylphosphobenzobetaine**, and its salts (MICHAELIS and CZIMATIS), 1883, A., 55.
- 2:4:6-Trimethylpiperidine** (*copellidine*) (JAECKLE), 1888, A., 1104.
- iodo-** (FISCHER), 1884, A., 1291.
- Trimethylpropylammonium salts** (SCHMIDT and WEISS), 1892, A., 949.
- bromide, dibromo-** (SCHMIDT and PARTHEIL), 1892, A., 950.
- Trimethylpropylammonium chloride** and hydroxide, action of heat on (COLLIE and SCHRYVER), 1890, T., 771.
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- iodide** (LANGELI), 1887, A., 461; (H. and A. MALBOT), 1892, A., 1294.
- γ-iodo-** (PARTHEIL), 1890, A., 357; (SCHMIDT and PARTHEIL), 1892, A., 950.
- Trimethylisopropylammonium chloride** and hydroxide, action of heat on (COLLIE and SCHRYVER), 1890, T., 772.
- iodide** (H. and A. MALBOT), 1892, A., 1295.
- Trimethylpropylphenylammonium iodide** (CLAUS and HOWITZ), 1884, A., 1006.
- Trimethylpropylpyrogallol** (WILL), 1888, A., 1090.
- 2:4:6-Trimethylpyridine** (*γ-collidine*) (HANTZSCH), 1883, A., 83.
- from coal-tar** (MOHLER), 1888, A., 727.
- 3:5-dibromo-** (PFEIFFER), 1887, A., 844.
- 2:4:6-Trimethylpyridine-3-carboxylic acid** (*collidinecarboxylic acid*) (MICHAEL), 1885, A., 62.
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- 2:4:6-Trimethylpyridinedicarboxylic acid** (*collidinedicarboxylic acid*) (HANTZSCH), 1883, A., 83.
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- 1:2:4-Trimethylpyridone** (*methyl-ψ-lutidostyrene*) and its derivatives (HANTZSCH), 1884, A., 1046.
- hydrochloride, decomposition product of** (HANTZSCH), 1885, A., 397.
- 1:2:6-Trimethylpyridone** (*methyl-lutidone*) (CONRAD and GUTHZEIT), 1887, A., 500; (CONRAD and ECKHARDT), 1889, A., 519.
- 1:2:6-Trimethylpyridone-3:5-dicarboxylic acid** (CONRAD and GUTHZEIT), 1887, A., 500.
- Trimethylpyrogalliccarboxylic acid** (WILL), 1888, A., 1090.
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- Trimethylpyrrolidine** (WEIL), 1886, A., 529.
- 1:2:5-Trimethylpyrrolidine** (TAFEL and NEUGEBAUER), 1890, A., 1001.
- 1:1:2-Trimethylpyrrolidyl salts** (MERLING), 1891, A., 1506.



- Trimethylpyrrolidyl iodide** (CIAMICIAN and MAGNAGHI), 1885, A., 1243.
- Trimethylpyrroline** [b. p. 150°—165°] (CIAMICIAN and ANDERLINI), 1889, A., 728.
- 1:2:5-Trimethylpyrroline** [b. p. 173°] (KNORR), 1887, A., 275.
- 1:2:5-Trimethylpyrroline-3:4-dicarboxylic acid** (KNORR), 1885, A., 555.
- Trimethylpyruvic acid** (GLÜCKSMANN), 1890, A., 237.
- 1:4-Trimethylquinoline and its salts** (BEREND), 1885, A., 558.
- 1:3:2'-Trimethylquinoline and its derivatives** (PANAJOTOW), 1887, A., 381.
- 2:3:2'-Trimethylquinoline** (BEREND; MERZ), 1884, A., 1053.
- 2':3':4'-Trimethylquinoline** (COMBES), 1888, A., 505.
- 3:2':3'-Trimethylquinoline** (V. MILLER), 1890, A., 1326; 1891, A., 1095.
- 3:2':4'-Trimethylquinoline and its derivatives** (PFITZINGER), 1885, A., 1246; 1888, A., 1207; (COMBES), 1888, A., 505.
- derivatives of (PFITZINGER), 1885, A., 1246.
- Trimethylquinolinealdehyde** (EINHORN), 1886, A., 264.
- 1:3:2'-Trimethylquinolinesulphonic acid** (PANAJOTOW), 1887, A., 381.
- Trimethylquinoxaline** (*dimethyltoluquinoxaline*) (V. PECHMANN), 1888, A., 812.
- Trimethylsuccinic acid** (BISCHOFF and MINTZ), 1890, A., 743; (BISCHOFF), 1890, A., 1099; 1891, A., 828; (AUWERS and KÖBNER), 1891, A., 1016.
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- Trimethylsuccinic acids, stereoisomeric** (ZELINSKY and BESREDKA), 1891, A., 669.
- Trimethylsulphine**, preparation of (CARRARA), 1892, A., 1422.
- haloid-derivatives of (DOBBIN and MASSON), 1885, T., 56.
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- 1:3:2'-Trimethyltetrahydroquinoline** (PANAJOTOW), 1887, A., 381.
- Trimethylthiazole** (HANTZSCH), 1890, A., 1238; (RUBLEFF), 1891, A., 223.
- Trimethylthiohydantoin** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 151.
- $\nu\beta$ -Trimethyl- $\mu$ -thiomethoxyglyoxalone** (MARCKWALD, NEUMARK and STELZNER), 1892, A., 153.
- 2:3:4-Trimethylthiophen** (ZELINSKY), 1887, A., 921.
- 2:3:4-Trimethylthiophen-5-carboxylic acid** (GATTERMANN), 1888, A., 575.
- Trimethyl-tricoumaric acid and -tricoumarin** (HANTZSCH and ZÜRCHER), 1887, A., 830.
- Trimethyltrimethyleneammonium bromide** (PARTHEIL), 1890, A., 357.
- Tri-2'-methyltritetrahydroquinolylmethane** (V. MILLER), 1891, A., 1103.
- Trimethyluracil** (BEHREND), 1886, A., 339; 1890, A., 31; (HAGEN), 1888, A., 582; (HOFFMANN), 1890, A., 31.
- amido-, and chloro- (HAGEN), 1888, A., 582.
- Trimethyluric acid** (FISCHER), 1884, A., 1309.
- Trimethylvinylammonium salts** (BODE), 1892, A., 806.
- salts, bromo- (BODE), 1892, A., 807.
- hydroxide, physiological action of (BRIEGER), 1884, A., 1202; (CERVELLO), 1885, A., 925; 1888, A., 309.
- Trimethylxylidine iodide** (MENTON), 1891, A., 1205.
- Trimyristin** (REIMER and WILL), 1885, A., 1197.
- heats of combustion and formation of (STOHMANN and LANGEIN), 1891, A., 11.
- Trinaphthylcarbinol**, synthesis of (ELBS), 1883, A., 1000.
- Tri- $\alpha$ -naphthylguanidine** (EVERS), 1888, A., 601.
- Trinaphthylc phosphates,  $\alpha$ - and  $\beta$ -** (HEIM), 1883, A., 1108.
- Tri- $\alpha$ -naphthylmelamine** (FRIES), 1886, T., 315.
- Tri- $\beta$ -naphthylpararosaniline** (MELDOLA), 1883, A., 807.
- Trioctylamine** (*tricaprylamine*) (MERZ and GASTOROWSKI), 1884, A., 984.
- Triolein**, distillation of, under pressure (ENGLER), 1889, A., 586.
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- Trional** (BAUMANN and KAST), 1889, A., 1233.
- Triopianide**, and the action of bromine and of nitric acid on (WEGSCHEIDER), 1883, A., 997.

- Trioxymethylene.** See Paraformaldehyde under Formaldehyde.
- Triphenetylsarsine** (*triethoxyphenylarsine*) (MICHAELIS and WEITZ), 1887, A., 367.
- Triphenodioxazine**, formation of (SEIDEL), 1890, A., 490.
- Triphenol-aluminium chloride** (CLAUS and MERCKLIN), 1886, A., 143.
- Triphenylacetamidine** (LUCKENBACH), 1884, A., 1135.
- Triphenylacetic acid**, and its sulpho-derivative (ELBS and TÖLLE), 1886, A., 352.
- Triphenylallylpyrrolone**, crystallography of (TUTTON), 1890, T., 748.
- Triphenylamidobenzene** (MOHR), 1890, A., 614.
- Triphenyltriamidobenzene** (MINUNNI), 1888, A., 1081.
- nitroso- (MINUNNI), 1891, A., 190.
- Triphenylamidomethane** and its derivatives (ELBS), 1884, A., 1031; (v. HEMILIAN and SILBERSTEIN), 1884, A., 1032.
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- Triphenylamine** (HEYDRICH), 1885, A., 1213.
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- mono-* and *di-amido-* (HERZ), 1890, A., 1409.
- triamido-* (HEYDRICH), 1885, A., 1213.
- mono-*, and *di-nitro-* (HERZ), 1890, A., 1409.
- trinitro-* (HEYDRICH), 1885, A., 1213.
- Triphenylaminetrisulphonic acid** (HERZ), 1890, A., 1410.
- Triphenylarsine** and the corresponding antimony-compound, preparation of (MICHAELIS and REESE), 1883, A., 327.
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- s-Triphenylbenzene** (MELLIN), 1890, A., 1423.
- synthesis of (DELACRE), 1892, A., 993.
- tetramido-*, and *tetranitro-* (MELLIN), 1890, A., 1423.
- Triphenylbenzenedisulphonic acid** (MELLIN), 1890, A., 1424.
- Triphenylbenzoylpropionic acid** (*oxy-lepidonic acid*) (JAPP and KLINGEMANN), 1889, P., 139; 1890, T., 690.
- crystallography of (TUTTON), 1890, T., 747.
- Triphenylbismuthine**, and its *di*bromide and *dichloride* (MICHAELIS and POLIS), 1887, A., 368; (MICHAELIS and MARQUARDT), 1889, A., 1061.
- Triphenylbutyrolactone** (JAPP and KLINGEMANN), 1889, P., 138; 1890, T., 680.
- Triphenylcarbamide**, *m-* and *p-nitro-* (LELLMANN and BONHÖFFER), 1887, A., 936.
- thio-* (PASCHKOWETZKY), 1892, A., 164.
- Triphenylcarbinol**, synthesis of (ELBS), 1883, A., 1000.
- p-amido-* (v. BAEYER and LÖHR), 1890, A., 1141, 1142.
- triamido-*. See *para*Rosaniline.
- m-nitro-* (TSCHACHER), 1888, A., 373.
- p-nitro-* (v. BAEYER and LÖHR), 1890, A., 1141.
- Triphenylcarbinolcarboxylic acids** (v. HEMILIAN), 1884, A., 323.
- Triphenylcarbinoldicarboxylic acids** (v. HEMILIAN), 1887, A., 267.
- Triphenylcarbinyll bromide**. See Triphenylmethane, bromo-.
- Triphenylcarbinyldimethylcarbinol** (WILGERODT and GENIESER), 1888, A., 811.
- Triphenylcarbinyllmono- and -di-methylamine** and their iodine-compounds (v. HEMILIAN and SILBERSTEIN), 1884, A., 1033.
- Triphenylcrotonolactone**, oxidation, reduction and chemical reactions of (JAPP and KLINGEMANN), 1889, P., 137; 1890, T., 678.
- crystallography of (TUTTON), 1890, T., 716.
- 2:4:5-Triphenyl-*m*-diazine**, 6-amido- (WACHE), 1889, A., 684.
- Triphenyldicarbimide** (RATHKE and OPPENHEIM), 1890, A., 1125.
- Triphenyldiethyl-*l*ithiobiuret** (BILLETTER and STROHL), 1888, A., 365.
- Triphenyldiguamide** (RATHKE and OPPENHEIM), 1890, A., 1126.
- Triphenyldimethylamidophosphine** (SCHENK and MICHAELIS), 1888, A., 835.
- Triphenyldimethylethyl ether** (WILGERODT and SCHIFF), 1890, A., 959.
- Triphenyl-dimethyl- and -dipropyl-dithiobiurets** (BILLETTER and STROHL), 1888, A., 365.
- Triphenylethane** (COMBES), 1884, A., 837.
- Triphenylethenyltrisulphone** (LAVES), 1892, A., 612.
- Triphenylethophenazonium hydroxide**, amido- (KEHRMANN and MESSINGER), 1892, A., 1109.

- Triphenylethylamine**, and its hydrochloride (ELBS), 1884, A., 1031.
- Triphenylethylenesemithiocarbazide** (BURCHARD), 1890, A., 251.
- Triphenylethylpropyldithiobiuret** (BILLETTER and STROHL), 1888, A., 365.
- 3:3:5-Triphenyl-1-ethylpyrroline** (JAPP and KLINGEMANN), 1890, T., 704. crystallography of (TUTTON), 1890, T., 730. action of bromine on (JAPP and KLINGEMANN), 1890, T., 705. bromo-, crystallography of (TUTTON), 1890, T., 736.
- Triphenylfurfuran** (*lepiden*) (SMITH), 1890, T., 645. oxidation and reduction of (JAPP and KLINGEMANN), 1890, T., 675. tribromo- (JAPP and KLINGEMANN), 1890, T., 713. chloro-, reduction of (JAPP and KLINGEMANN), 1890, T., 674.
- Triphenylglyoxaline** (*lophin*), constitution of (JAPP), 1883, T., 9. oxidation of (JAPP), 1883, T., 15. reduction of (ZAUNSCHIRM), 1888, A., 1078.
- $\alpha$ -Triphenylguanidine** (HENTSCHEL), 1883, A., 1107. a physical peculiarity of (GIRAUD), 1887, A., 366. action of ethoxalyl chloride on (v. STOJENTIN), 1884, A., 1159. picrate (PRELINGER), 1892, A., 950.
- $\alpha$ -Triphenylguanidine**, *m*-nitro- and *m*-trinitro-, and its hydriodide (LOSANITSCH), 1883, A., 582.  $\beta$ -nitro-, dicyanide (HIRSCH), 1888, A., 947.
- Triphenylguanylthiocarbamide** and dicyanodiamide (RATHKE and OPPENHEIM), 1890, A., 1125.
- 1:2:3-Triphenyl-1:2-hydronaphthazonium hydroxide** (FISCHER and BUTSCH), 1891, A., 1109.
- Triphenyl- $\gamma$ -hydroxybutyric acid** (JAPP and KLINGEMANN), 1889, P., 138; 1890, T., 680.
- $\alpha\beta$ -Triphenyl- $\gamma$ -hydroxypropylideneacetethylamide** and -acetic acid (COHN), 1892, A., 484.
- Triphenylic phosphate**, trinitro- (RAPF), 1884, A., 1338. phosphite (NOACK), 1883, A., 735; (ANSCHÜTZ and EMERY), 1890, A., 34. thiophosphate (ANSCHÜTZ and EMERY), 1890, A., 35.
- 1-*eso*-Triphenylmelamine** (RATHKE), 1888, A., 591.
- 2-*eso*-Triphenylmelamine** and its derivatives (v. HOFMANN), 1886, A., 233.
- 3-*eso*-Triphenylisomelamine** (v. HOFMANN), 1886, A., 233; (RATHKE), 1887, A., 663. derivatives of (v. HOFMANN), 1886, A., 233.
- n*-Triphenylmelamine** (v. HOFMANN), 1886, A., 41, 233; (KLASON), 1886, A., 522.
- $\psi$ -Triphenylmelamine**, nature of (BUDÉUS), 1890, A., 1254.
- Triphenylmelamines**, formula of (RATHKE), 1887, A., 650.
- Triphenylmethane**, preparation of (LINEBARGER), 1892, A., 719. synthesis of (ELBS), 1883, A., 1000; (GRIEPENTROG), 1886, A., 887. spectrum of (HARTLEY), 1887, T., 162. action of bromine on (KÖLLIKER), 1885, A., 990. action of potassium on (HANRIOT), 1889, A., 882. condensation of, with chloroform (LINEBARGER), 1892, A., 722. hydrogenation of (GOLENKIN), 1888, A., 483. oxidation of (HANRIOT and SAINT-PIERRE), 1890, A., 168. derivatives of (RENOUF), 1883, A., 981; (ULLMANN), 1885, A., 1236; 1888, A., 288; (KOCK), 1887, A., 836. violet derivatives of (FISCHER and GERMAN), 1883, A., 1097; (FISCHER and KÖRNER), 1884, A., 606, 749. and its homologues, hydroxynitro-derivatives of (BERTONI), 1891, A., 1378.
- Triphenylmethane**, 1-amido- (*triphenylmethylamine*) (ELBS), 1883, A., 1000; 1884, A., 1031; (NAUEN), 1884, A., 899. *o*-amido- (FISCHER and FRÄNKEL), 1888, A., 56. *p*-amido- (v. BAEYER and LÖHR), 1890, A., 1141. diamido-, preparation of (MAZZARA), 1885, A., 904; (ULLMANN), 1885, A., 1236. action of phenols on (MAZZARA), 1885, A., 800. action of potassium nitrite on (MAZZARA), 1885, A., 800, 904. triamido-. See *para*Leucaniline. bromo-, action of, on ethylic sodiomalonate (HENDERSON), 1886, P., 251; 1887, T., 224. reactions of (ELBS), 1883, A., 1000; 1884, A., 1030.



- Triphenylmethane**, bromo-, derivatives of (ALLEN and KÖLLIKER), 1885, A., 655; (KÖLLIKER), 1885, A., 990.
- o*-cyano- (DRORY), 1891, A., 1461.
- m*-nitro- (TSCHACHER), 1887, A., 44; 1888, A., 373.
- p*-nitro- (v. BÄYER and LÖHR), 1890, A., 1141.
- thiocyano- (ELBS), 1884, A., 1030.
- Triphenylmethaneanhydrocarboxylic acid** (v. HEMILIAN), 1884, A., 323.
- Triphenylmethane-*o*-carboxylic acid** (GRESLY), 1886, A., 1035; (FISCHER and FRÄNKEL), 1888, A., 56; (DRORY), 1891, A., 1462.
- Triphenylmethane-2:4-dicarboxylic acid** (v. HEMILIAN), 1887, A., 267.
- Triphenylmethane-3:4-dicarboxylic acid** (v. HEMILIAN), 1884, A., 323.
- Triphenylmethane-group**, dyes of the (NÖLTING), 1891, A., 727; 1892, A., 187.
- Triphenylmethylaniline** (ELBS), 1884, A., 1031; (v. HEMILIAN and SILBERSTEIN), 1884, A., 1033.
- nitroso- (ELBS), 1884, A., 1031.
- Triphenylmethylanilinesulphonic acid** (ELBS), 1884, A., 1032.
- Triphenylmethylazimethylene** (CURTIUS and RAUTERBERG), 1891, A., 1360.
- Triphenylmethylbenzylamine** and its hydrochloride (ELBS), 1884, A., 1031.
- Triphenylmethylpropyldithiobiuret** (BILLETER and STROHL), 1888, A., 365.
- Triphenylmethylpyrazine** (KNORR and LAUBMANN), 1888, A., 725.
- 3:3:5-Triphenyl-1-methylpyrrolidone** (JAPP and KLINGEMANN), 1889, P., 140; 1890, T., 701.
- 3:3:5-Triphenyl-1-methylpyrrolone** (JAPP and KLINGEMANN), 1889, P., 140; 1890, T., 698.
- crystallography of (TUTTON), 1890, T., 724.
- action of bromine on (JAPP and KLINGEMANN), 1890, T., 699.
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- bromo-, crystallography of (TUTTON), 1890, T., 728.
- Triphenylmethyl-*p*-toluidine**, nitroso- (WITTICH), 1884, A., 1032.
- Triphenylmethyltoluidines** (WITTICH), 1884, A., 1032.
- Triphenyl- $\beta$ -naphthyl-carbamide** and -thiocarbamide (PASCHKOWETZKY), 1892, A., 165, 167.
- Triphenyltrinitrophenylglucinel** (JACKSON and WARREN), 1891, A., 1026.
- Triphenylosotriazone** (AUWERS and MEYER), 1889, A., 51.
- Triphenylphloroglucinel** (HODGKINSON), 1886, P., 189.
- Triphenylphosphine** and its derivatives (MICHAELIS and v. SODEN), 1885, A., 1134.
- Triphenylphosphine oxide**, nitro- and amido- (MICHAELIS and v. SODEN), 1884, A., 1180.
- Triphenylphosphoryl dibromide** (NOACK), 1883, A., 736.
- Triphenylphosphoryl dichloride** (ANSCHÜTZ and EMERY), 1890, A., 35.
- 1:2:3-Triphenylpropane** (CLAUS and MERCKLIN), 1886, A., 143.
- Triphenylpropenyldisulphone sulphide** (OTTO and RÖSSING), 1891, A., 568.
- Triphenylpropenyltrisulphone** (STUFFER), 1890, A., 988.
- $\beta$ -Triphenylpropionic acid** and its salts (HENDERSON), 1887, T., 226; A., 671.
- Triphenylpropylpyrrolone**, crystallography of (TUTTON), 1890, T., 738.
- 1:3:5-Triphenylpyrazole** and its derivatives (KNORR and LAUBMANN), 1888, A., 725.
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- Winter flax**, cultivation of (LEYDHECKER), 1884, A., 921.
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*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

- Xanthocreatinine**, formation of, in the organism (MONARI), 1887, A., 613; 1888, A., 174.  
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- Xanthoquinic acid**. See 2-Hydroxy-quinoline-4'(?)-carboxylic acid.
- Xanthorhodium salts**. See under Rhodium.
- Xanthotrychnol** (LOEBISCH and SCHOOP), 1886, A., 268, 814.
- Xanthoxalanil and xanthoxalotulidil** (WISLICENUS and SATTLER), 1891, A., 902.
- Xanthoxylon** (*Zanthoxylum senegalense*, bark of, constituents of the (GIACOSA and MONARI), 1888, A., 167; (GIACOSA and SOAVE), 1890, A., 918.
- Xenotime** (*yttrium phosphate*) (HIDDEN), 1889, A., 355.  
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- Xeronic acid** (*diethylmaleic acid*) (ROSER), 1883, A., 98.  
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- p*-Xylaldiphenylmaleide** (COHN), 1892, A., 482.
- m*-Xylal-phthalide and -phthalimidine** and their nitro-derivatives, and *iso*-xylal-phthalide and -phthalimidine (HEILMANN), 1890, A., 625; 1891, A., 200.
- p*-Xylal-phthalide and -phthalimidine** and their nitro-derivatives, and *iso*-*p*-xylal-phthalide and -phthalimidine (RUHEMANN), 1892, A., 473.
- Xylalphthalnitronitrite** (HEILMANN), 1890, A., 625.
- Xylan** (*wood-gum*) (HOFFMEISTER), 1886, A., 955; (WHEELER and TOLLENS), 1889, A., 847; (ALLEN and TOLLENS), 1891, A., 659.  
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- o*-Xylene** (*dimethylbenzene*), spectrum of (HARTLEY), 1885, T., 702.  
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- o*-Xylene**, 4-bromo- (JACOBSEN), 1885, A., 142.  
 $\omega$ -dibromo- (*xylylenic bromide*) (v. BAEYER and PERKIN), 1884, A., 752; (COLSON), 1884, A., 1000.  
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- 4:5- and 3(?) : 4-dibromo- (JACOBSEN), 1885, A., 142; (Koch), 1890, A., 1247.



*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

- o*-Xylene**, tetrabromo- (JACOBSEN), 1885, A., 142.  
 4:5:3-*di*bromonitro- and 4:5:3:6-*di*bromodinitro- (TÖHL), 1886, A., 57.  
 3-chloro- (KRÜGER), 1885, A., 1053.  
 4-chloro- (CLAUS and KAUTZ), 1885, A., 972; (KRÜGER), 1885, A., 1053; (CLAUS and GRONEWEG), 1891, A., 921.  
*ω*-dichloro- (COLSON), 1884, A., 1000.  
*β*-*di*-, *tri*- and *tetra*-chloro- (CLAUS and KAUTZ), 1885, A., 972.  
*ω*-tetrachloro- (HJELT), 1886, A., 143.  
*ω*-*tetra*- and *ω*-*penta*-chloro- (COLSON and GAUTIER), 1886, A., 613.  
 4:5-chlorobromo-, 4:5:3-*dichloro*-bromo-, 4:5-chlorobromonitro- and 4:5-chloronitro- (CLAUS and GRONEWEG), 1891, A., 921.  
 4:5:3:6-*dichlorodinitro*- (CLAUS, RAPS, HERFELDT and BERKEFELD), 1891, A., 1201.  
*ω*-*di*iodo- (LESER), 1884, A., 1314.  
***m*-Xylene**, spectrum of (HARTLEY), 1885, T., 704.  
 action of methylenic chloride on, in presence of aluminium chloride (FRIEDEL and CRAFTS), 1887, A., 1102.  
 derivatives of (COLSON), 1884, A., 1313; (AHRENS), 1892, A., 1437.  
 behaviour of, in the animal system (GLEDITSCH and MOELLER), 1889, A., 708.  
***m*-Xylene**, 2:4:6-*tri*amido- (GREVINGK), 1885, A., 144.  
*ω*-*di*bromo- (COLSON), 1884, A., 1313; (KIPPING), 1888, T., 26.  
 2:4-*di*bromo-, and its derivatives (JACOBSEN), 1889, A., 39.  
 4:6-bromonitro- (AHRENS), 1892, A., 1437.  
 4:2:6-bromodinitro- (LELLMANN and JUST), 1891, A., 1245.  
 4-chloro- (JACOBSEN), 1885, A. 1052; (CLAUS and BURSTERT), 1890, A., 1105.  
 2:4-*dichloro*- (KOCH), 1890, A., 1248.  
 4:6-*dichloro*- (CLAUS and BURSTERT), 1890, A., 1106; (KOCH), 1890, A., 1248.  
 orientation of (CLAUS and RUNSCHKE), 1890, A., 1246.  
 amido-, bromo- and nitro-derivatives of (CLAUS and RUNSCHKE), 1890, A., 1247.  
 2:4:6-*tri*chloro- (CLAUS and BURSTERT), 1890, A., 1106.  
***m*-Xylene**, 2:4:5:6-*tetra*chloro- (CLAUS and BURSTERT), 1890, A., 1106; (KOCH), 1890, A., 1248.  
*ω*-*tetra*- and *hexa*-chloro- (COLSON and GAUTIER), 1886, A., 613.  
 2:4:5:6-*dichlorodibromo*- (KOCH), 1890, A., 1248.  
 4:6-chloronitro- (AHRENS), 1892, A., 1437.  
 4:6:2:5-*dichlorodinitro*- (KOCH), 1890, A., 1248.  
 4-fluoro- (TÖHL), 1892, A., 968.  
 fluoronitro- (AHRENS), 1892, A., 1437.  
 4-iodo-, action of sulphuric acid on (HAMMERICH), 1890, A., 1106.  
 4:6-*di*iodo- (HAMMERICH), 1890, A., 1107.  
 6:4-iodonitro- (AHRENS), 1892, A., 1437.  
 2-nitro- and 2:4-*dinitro*- (GREVINGK), 1885, A., 144.  
 nitrocyano- (AHRENS), 1892, A., 1437.  
***p*-Xylene** in Galician petroleum (PAWLEWSKI), 1885, A., 1126.  
 spectrum of (HARTLEY), 1885, T., 707.  
 commercial, ethylbenzene in (NÖLTING and PALMER), 1891, A., 1197.  
 ethylin, action of phosphoric chloride on (COLSON), 1885, A., 252.  
***p*-Xylene**, 2-bromo- (JACOBSEN), 1885, A., 144, 518; (JANNASCH), 1885, A., 251.  
*ω*-*di*bromo- (KIPPING), 1888, T., 34.  
 action of fuming nitric acid on (LÖW), 1885, A., 1208.  
 2:5-*di*bromo-, preparation and properties of (MOODY and NICHOLSON), 1890, T., 974.  
 and its transformation by means of sulphuric acid (KOCH), 1890, A., 1247.  
 solid, oxidation products of (SCHULTZ), 1885, A., 1053.  
 2:6-*di*bromo- and *tetra*bromo- (JACOBSEN), 1885, A., 518.  
 chloro- and 2:5-*dichloro*- (KLUGE), 1885, A., 1208.  
*ω*-*tetra*-, *ω*-*penta*- and *ω*-*hexa*-chloro- (COLSON and GAUTIER), 1886, A., 613.  
*mono*-, *di*- and *tri*-chlorobromo-, chloro-*di*- and *tri*-bromo- and *di*-chlorodibromo-, and their derivatives (WILLGERODT and WOLFIEN), 1889, A., 965.  
 2:5-*dichlorodinitro*- (KLUGE), 1885, A., 1208.

*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

*p*-Xylene, 2-nitro-, oxidation of (NOYES), 1889, A., 394.

2:3- and 2:6-dinitro-, crystallographic examination of (BARNER), 1883, A., 179.

2:3-, 2:5- and 2:6-dinitro-, constitution of (LELLMANN), 1885, A., 973.

2:3:6-trinitro- (NÖLTING and GEISSMANN), 1886, A., 344.

2:5-dinitroso- (PFLUG), 1890, A., 607.

**Xylenes** (COLSON), 1884, A., 1000.

coal-tar, English and Scotch (LEVINSTEIN), 1884, A., 898.

preparation of (COLSON), 1885, A., 654.

molecular refraction and dispersion of (GLADSTONE), 1891, T., 295.

action of aluminium chloride on (HEISE and TÖHL), 1892, A., 1309.

derivatives of the three isomeric (RADZISZEWSKI and WISPEK), 1885, A., 889.

three, in coal-tar, analytical estimation of (REUTER), 1884, A., 1431.

separation of the (CRAFTS), 1892, A., 1134.

**Xyleneazo-**. See under Azo-.

*m*-Xylenecarboxylic acid, dinitroso-, and nitronitroso- (CLAUS), 1890, A., 980.

**Xylenecinnamene**. See Xylenestyrene.

**Xylenediamine**. See Xylylenediamine.

*p*-Xylene- $\omega$ -dicarboxylic acid. See *p*-Phenylenediacetic acid.

**Xylenedicarboxylic acids**. See Cumidic acids.

*m*-Xylene-2:4-disulphone-ethylamide (WISCHIN), 1891, A., 74.

*o*-Xylene-4:6(?)-disulphonic acid (PFANNENSTILL), 1892, A., 1341.

*m*-Xylene-2:4-disulphonic acid (WISCHIN), 1891, A., 73; (PFANNENSTILL), 1892, A., 1340.

6-bromo- and 6-chloro- (WISCHIN), 1891, A., 74.

*m*-Xylene-2:6(?)-disulphonic acid (PFANNENSTILL), 1892, A., 1340.

*p*-Xylene-2:6(?)-disulphonic acid and its derivatives (HOLMES), 1891, A., 1374; (PFANNENSTILL), 1892, A., 1341.

*m*-Xylenephthaloylic acid, ammonium salt of, crystalline form of (SORET), 1886, A., 619.

**Xylenestyrene** (*xylenecinnamene*). See Phenyltolylpropane.

*m*-Xylenesulphonamic acid and its salts (TRAUBE), 1890, A., 1137.

*o*-Xylene-4-sulphonamide (JACOBSEN), 1885, A., 143.

*p*-Xylene-2-sulphonamide, 5-(?)bromo- (JACOBSEN), 1885, A., 144.

3:6-dibromo-, and its reduction (MOODY and NICHOLSON), 1890, T., 977.

*o*-Xylene-3-sulphonic acid, 6-chloro- (KRÜGER), 1885, A., 1053.

*o*-Xylene-4-sulphonic acid, 5-bromo-, and its salts (JACOBSEN), 1885, A., 143.

5-chloro- (KRÜGER), 1885, A., 1053.

*m*-Xylene-2-sulphonic acid and its derivatives (MOODY), 1888, P., 77; 1891, P., 189.

*m*-Xylene-4-sulphonic acid and its derivatives (MOODY), 1888, P., 77; 1891, P., 189.

nitration products of (CLAUS and SCHMIDT), 1886, A., 708.

oxidation of (LIMPRICHT), 1885, A., 1235.

diamido- and 6-bromonitro- and their salts (LIMPRICHT), 1885, A., 1234.

5-bromo- (NÖLTING and KOHN), 1886, A., 356.

6-iodo- (BAUCH), 1891, A., 73.

2-, 5- and 6-mono- and 2:6- and 5:6-di-nitro- (CLAUS and SCHMIDT), 1886, A., 708.

*p*-Xylene-2-sulphonic acid, 5(?)bromo- (JACOBSEN), 1885, A., 144.

5-bromo- (NÖLTING and KOHN), 1886, A., 356; 1889, A., 611.

3:6-dibromo-, and its salts (MOODY and NICHOLSON), 1890, T., 976.

**Xylenesulphonic acids**, action of bromine on aqueous solutions of (KELBE and STEIN), 1886, A., 1032.

*p*-Xylene-2-sulphonic chloride, 3:6-dibromo- (MOODY and NICHOLSON), 1890, T., 977.

**Xylenol** ethers, heat equivalent of (STOHMANN, RODATZ and HERZBERG), 1887, A., 428.

amido-, and its hydrochloride (PFAFF), 1883, A., 918.

nitro-, and its derivatives (PFAFF), 1883, A., 802, 918.

*o*-3-Xylenol (TÖHL), 1886, A., 57; (NÖLTING and FOREL), 1886, A., 58.

tribromo- (TÖHL), 1886, A., 57.

*o*-4-Xylenol, 3:5-dinitro- (NÖLTING and PICK), 1889, A., 129.

*m*-2-Xylenol (JACOBSEN), 1889, A., 41.

*m*-4-Xylenol (SMITH, COUTTS and BROTHERS), 1886, T., 23; (JACOBSEN), 1886, A., 345.

*m*-5-Xylenol (TÖHL), 1885, A., 522.

*p*-2-Xylenol, 5-amido- (SUTKOWSKI), 1887, A., 668.

*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

- p*-2-Xylenol,  $\omega$ -dibromo- (ADAM), 1884, A., 1329.  
 5-nitro-, ethyl salt of (NÖLTING, WITT and FOREL), 1886, A., 58.  
 5-nitroso-. See *p*-Xyloquinoneoxime.  
*m*-4-Xylenol-5-sulphonic acid (LIMPRICHT), 1885, A., 1234; (SARTIG), 1886, A., 153.  
*m*-4-Xylenol-6-sulphonic acid, 2- or 5-nitro- (LIMPRICHT), 1885, A., 1234; (SARTIG), 1886, A., 154.  
 Xylenyl-amidoxime and its derivatives, -azoxime-ethenyl-, -imidoximecarbonyl and -uramidoxime (OPPENHEIMER), 1890, A., 49.  
 Xylic (*xylylic*) acids. See Dimethylbenzoic acids.  
*m*-Xylidene-aniline and -phenylhydrazine (BORNEMANN), 1884, A., 1162.  
 Xylidine, commercial (STAEDEL and HÖLZ), 1886, A., 145.  
 zinc chloride (MARTINI), 1892, A., 1455.  
 hydrobromides (STAEDEL), 1883, A., 578.  
 hydrochlorides, action of methylic alcohol on (NÖLTING and FOREL), 1886, A., 58.  
 naphthate (DYSON), 1883, T., 471.  
 cyano- (SENF), 1887, A., 929.  
*o*-3-Xylidine (*amidoxylene*) (TÖHL), 1886, A., 57; (NÖLTING and PICK), 1889, A., 131; (MENTON), 1891, A., 1203.  
 salts of (TÖHL), 1886, A., 57.  
 4:5-dibromo- (TÖHL), 1886, A., 57.  
*o*-4-Xylidine and its derivatives (JACOBSEN), 1884, A., 737; (MÜLLER), 1887, A., 663.  
 5-chloro- (CLAUS), 1892, A., 1202.  
*m*-2-Xylidine, nitration of (NÖLTING and STOECKLIN), 1891, A., 692.  
*m*-4-Xylidine (MÜLLER), 1887, A., 663.  
 action of benzylic chloride on (JABLINGONNET), 1892, A., 314, 1320.  
 nitration of (NÖLTING and COLLIN), 1884, A., 1013.  
 anhydro-bases of (GUDEMAN), 1888, A., 1282.  
 compounds of metallic sulphides with (DENIGÈS), 1891, A., 1031.  
 2-nitro-, and its acetyl derivative (GREVINGK), 1885, A., 144.  
*m*-5-Xylidine (TÖHL), 1885, A., 522.  
 methylation of (LIMPACH), 1888, A., 464.  
 carbamate, cyanate and cyanurate (FRENTZEL), 1889, A., 241.  
*p*-2-Xylidine (NÖLTING, WITT and FOREL), 1886, A., 57; (PFLUG), 1890, A., 606.  
 preparation and properties of (WITT), 1889, A., 603.  
 di-amido- (WITT, NÖLTING and FOREL), 1889, A., 604.  
 3:5-dibromo- (NÖLTING and KOHN), 1886, A., 356.  
 5-chloro- (KLUGE), 1885, A., 1208.  
 5-nitro- (NÖLTING, WITT and FOREL), 1886, A., 58; (WITT), 1889, A., 604.  
 thio-base from (ANSCHÜTZ and SCHULTZ), 1889, A., 603.  
*o*-Xylidines (JACOBSEN), 1884, A., 737; 1886, A., 235.  
 nitration of (NÖLTING and STOECKLIN), 1891, A., 692.  
*m*-Xylidines, action of diazo-*p*-nitrobenzene salts on (MELDOLA), 1883, T., 428.  
 Xylidines, consecutive (WRÓBLEWSKI), 1886, A., 145.  
 six isomeric and some of their derivatives (NÖLTING and FOREL), 1885, A., 381; 1886, A., 58.  
 separation of (WITT), 1886, A., 699.  
*m*-4-Xylidine-5-sulphonic acid (NÖLTING and KOHN), 1889, A., 611.  
 constitution of (PANAJOTOW), 1887, A., 382.  
*m*-4-Xylidine-5(?) -sulphonic acid and its salts (JACOBSEN and LEDDERBOGE), 1883, A., 593; (SARTIG), 1886, A., 153.  
*m*-4-Xylidine-6-sulphonic acid and its salts (SARTIG), 1886, A., 153; (NÖLTING and KOHN), 1886, A., 355.  
 2- or 5-nitro- (LIMPRICHT), 1885, A., 1234.  
*p*-2-Xylidine-5- and -6-sulphonic acids (NÖLTING and KOHN), 1886, A., 355; 1889, A., 611.  
*m*-Xyldioethylphthalimide. See Xylyl-amidoethylphthalimide.  
 Xylitol (FISCHER and STAHEL), 1891, A., 668; (BERTRAND), 1892, A., 28.  
 constitution of (BERTRAND), 1892, A., 29.  
 pentanitrate (BERTRAND), 1892, A., 29.  
*m*-Xylobenzaldehyde (HINRICHSSEN), 1889, A., 131, 391.  
*m*-Xylo-benzylamine and -benzylic alcohol (HINRICHSSEN), 1889, A., 131.  
 Xyloic acid (ALLEN and TOLLENS), 1891, A., 668.  
*o*-Xylo-3:6-quinol (*dimethylquinol*) (NÖLTING and FOREL), 1886, A., 58.



*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

*o*-Xylo-3:6-quinol (*dimethylquinol*)  
4:5-dichloro- (CLAUS, RAPS, HER-  
FELDT and BERKEFELD), 1891, A.,  
1201.

*m*-Xylo-2:5-quinol (NÖLTING and  
FOREL), 1886, A., 58.

4:6-dichloro- (CLAUS and RUNSCHKE),  
1890, A., 1247.

*p*-Xylo-2:5-quinol (NIETZKI), 1883, A.,  
467.

oxidation of (HEYMANN and KOENIGS),  
1887, A., 1035.

Xyloquinoline. See Dimethylquinol-  
ine.

*o*-Xylo-3:6-quinone (1:2-*dimethyl*-3:6-  
*quinone*) (NÖLTING and FOREL),  
1885, A., 382; 1886, A., 58.

4:5-dichloro- (CLAUS, RAPS, HER-  
FELDT and BERKEFELD), 1891, A.,  
1201.

*m*-Xylo-2:5-quinone (NÖLTING and  
FOREL), 1885, A., 382; 1886, A.,  
58.

4:6-dichloro- (CLAUS and RUNSCHKE),  
1890, A., 1247.

*p*-Xylo-2:5-quinone (*phlorone*) and its  
derivatives (NIETZKI), 1883, A., 467;  
(NÖLTING and FOREL), 1885, A., 382;  
(GOLDSCHMIDT and SCHMID), 1885,  
A., 775.

*p*-Xylo-2:5-quinonedioxime (SUTKOW-  
SKI), 1887, A., 668; (PFLUG), 1890,  
A., 607.

*p*-Xylo-2:5-quinoneoxime (5-nitroso-*p*-  
2-xylene) and its derivatives (GOLD-  
SCHMIDT and SCHMID), 1885, A., 775;  
(SUTKOWSKI), 1887, A., 667; (PFLUG),  
1890, A., 607.

*m*-Xyl-4:6-oreinol (*dihydroxyxylene*)  
(PFAFF), 1883, A., 918; (V. KOSTA-  
NECKI), 1887, A., 39.

*m*-Xyl-4:6-oreinol-5-carboxylic acid  
(V. KOSTANECKI), 1887, A., 39.

Xylose. See Carbohydrates.

Xylosecarboxylic acid (FISCHER), 1890,  
A., 1399.

*o*-Xyl-*isobutylbenzyl* ketone (WEGE),  
1892, A., 338.

*m*-Xyl-*ethyl* ketone (CLAUS), 1891,  
A., 564.

*p*-Xyl-*ethyl* ketone (CLAUS and  
FICKERT), 1887, A., 253.

*o*-Xyl-*methyl* ketone (CLAUS and  
CLAUSSEN), 1886, A., 463; (CLAUS),  
1890, A., 770.

5-chloro-, and derivatives (CLAUS),  
1891, A., 912; 1892, A., 1201.

*m*-Xyl-*methyl* ketone (CLAUS and  
GÄRTNER), 1886, A., 463.

6-amido- (CLAUS), 1890, A., 980.

*m*-Xyl-*methyl* ketone, 2- and 6-nitro-  
and 2:6-dinitro- (CLAUS), 1890, A., 980.

*p*-Xyl-*methyl* ketone and its deriva-  
tives (CLAUS and WOLLNER), 1885,  
A., 1136; (ERRERA), 1891, A., 1053.  
5-bromo- (SCHÖPFF), 1892, A., 338.

*m*-Xyl-*nitrosomethyl* ketone, 2:6-  
dinitro- (CLAUS), 1890, A., 981.

*m*-Xyl-*pentadecyl* ketone (KRAFFT),  
1888, A., 1087.

*o*-Xyl-*acetamide* (STRASSMANN), 1888,  
A., 474.

Xyl-*acetic acid* (*dimethylphenylacetic*  
*acid*), 4-nitro-, and its salts (WISPEK),  
1883, A., 1096.

*m*-Xyl-*acetic acid* (POPPE), 1890, A.,  
499.

*o*-Xyl-*amide* (HARRIS), 1890, A., 158.

*m*-Xyl-*amide* (HARRIS), 1890, A.,  
158; (GATTERMANN and ROSSOLYMO),  
1890, A., 975.

$\alpha$ -*m*-Xyl-*amidoacetic acid* and its  
ether (EHRlich), 1883, A., 594.

Xyl-*amidoacetoxylidide* (EHRlich),  
1883, A., 594.

*m*-Xyl-*amidoethylphthalimide* (NEW-  
MAN), 1891, A., 1208.

*m*-Xyl-*amidomethane* (HINRICHSSEN),  
1889, A., 131, 391.

Xyl-*amine*. See Methylbenzylamine  
and Xylidine.

Xyl- and *isoxyl*-*anilide* (LEUCKART),  
1890, A., 759.

Xyl-*antipyrine* (KLAUBER), 1891, A.,  
1363.

*m*-Xyl-*benzamidomethane* (HINRICHS-  
SEN), 1889, A., 391.

Xyl-*butane*. See *isobutylxylene*.

*o*-Xyl-*carbamide* (STRASSMANN), 1888,  
A., 474.

*m*-Xyl-*carbamide* (BRÖMME), 1888,  
A., 1296; (FRENTZEL), 1889, A., 241.

*m*-Xyl-*carbinol* (HINRICHSSEN), 1889,  
A., 131.

*p*-Xyl-*p-cymylphenylmethane* (ELBS),  
1887, A., 942.

Xyl-*diethylphosphine* (CZIMATIS),  
1883, A., 58.

1-*m*-Xyl-1:2:3-dimethylpyrazolone.  
(KLAUBER), 1891, A., 1363.

Xyl-*ldiphenylamides* (LELLMANN and  
BONHÖFFER), 1887, A., 935.

*o*-Xyl-*lene* diethyl ether (LESER), 1884,  
A., 1313.

*p*-Xyl-*lene* bismethylhydroxy-*m*-  
diazine (GLOCK), 1888, A., 1291.

*o*-Xyl-*lene* 3-6-diamine (*diamidoxylene*),  
4:5-dichloro- (CLAUS, RAPS, HER-  
FELDT and BERKEFELD), 1891, A.,  
1201.

*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

- o*-Xylylene- $\omega$ -diamine and its salts (STRASSMANN), 1888, A., 475.  
*m*-Xylylene-2:4- and -4:6-diamine (GREVINGK), 1885, A., 145.  
*m*-Xylylene-4:6-diamine, reactions of (WITT), 1888, A., 1186.  
*m*-Xylylene-5:6-diamine (JACOBSEN), 1889, A., 39.  
*m*-Xylylene- $\omega$ -diamine (BRÖMME), 1888, A., 1296.  
*p*-Xylylene-2:5-diamine (NÖLTING, WITT and FOREL), 1886, A., 58; (SUTKOWSKI), 1887, A., 668.  
Xylylenediaminesulphonic acid (LIMPRICHT), 1885, A., 1234.  
*o*-Xylylenedianilide (LESER), 1884, A., 1313.  
Xylylenedimalonic acids, *m*- and *p*- (KIPPING), 1888, T., 31, 38.  
*m*-Xylylenediphtalimide (BRÖMME), 1888, A., 1296.  
Xylylenemethyldiamine (PFLUG), 1890, A., 607.  
*o*-Xylylenephtalimide and chloro- (STRASSMANN), 1888, A., 475.  
Xylylenic bromide. See Xylene,  $\omega$ -dibromo-.  
*o*-Xylylenic dibromide (PERKIN), 1888, T., 5.  
Xylylenic cyanides, *m*- and *p*- (KIPPING), 1888, T., 41, 44.  
diazosulphide (JACOBSON and NEY), 1889, A., 772.  
oxide, *tetrachloro*- (GRAEBE), 1887, A., 832.  
sulphides (HJELT), 1890, A., 134.  
*o*-Xylylenic sulphide (LESER), 1884, A., 1313.  
*m*-Xylylethylenediamine (NEWMAN), 1891, A., 1208.  
 $\alpha$ -*m*-Xylylethylamidoacetic acid (EHRlich), 1883, A., 594.  
*o*-Xylylethylchlorodimalonic acid, synthesis of (v. BAeyer and PERKIN), 1884, A., 908.  
*m*-Xylylfurfuryl-carbamide and -thio-carbamide (DEUTSMANN), 1892, A., 43.  
*m*-Xylylglycollic acid (POPPE), 1890, A., 499.  
 $\nu$ -Xylyl-glyoxaline, -glyoxalyl- $\mu$ -mercaptop and -glyoxalyl- $\mu$ -methyl sulphide (MARCKWALD), 1892, A., 1329.  
*o*-Xylylglyoxylic acid (v. BUCHKA and IRISH), 1887, A., 826.  
*m*-Xylylglyoxylic acid (CLAUS and GÄRTNER), 1886, A., 463; (CLAUS), 1891, A., 564.  
6-nitro-, 2:6-dinitro- and -dinitroso- (CLAUS), 1890, A., 979.  
*p*-Xylylglyoxylic acid and its salts (CLAUS and WOLLNER), 1885, A., 1136.  
*m*-Xylylhydrazine (KLAUBER), 1890, A., 1410; 1891, A., 1362.  
Xylylhydrazinesulphonic acid, sodium salt of (KLAUBER), 1890, A., 1410.  
*m*-Xylylhydroxyacetic acid (CLAUS), 1890, A., 979; 1891, A., 564.  
*p*-Xylylhydroxyacetic acid (CLAUS and WOLLNER), 1885, A., 1137; (CLAUS), 1891, A., 564.  
*o*-Xylylic cyanide (v. BAeyer and PAPE), 1884, A., 898.  
*m*-Xylylic ethylxanthate (LEUCKART), 1890, A., 603.  
*p*-Xylylic phosphorus chlorides (WELLER), 1887, A., 824; 1888, A., 835.  
Xylylidenediamine (OPPENHEIMER), 1886, A., 547.  
Xylylimidazole. See Xylylglyoxaline.  
"*p*-Xylyl- $\beta$ -ketonic acid" (CLAUS and FICKERT), 1887, A., 253.  
"*p*-Xylyl- $\gamma$ -ketonic acid" (CLAUS and MURTFELD), 1887, A., 827.  
*m*-Xylyl-malonanilide and -malonic acid (POPPE), 1890, A., 498.  
*o*-Xylylmethylcarbinol (CLAUS), 1890, A., 770.  
*m*-Xylylmethylcarbinol (CLAUS), 1890, A., 979.  
Xylylmethylnitrosamine (PFLUG), 1890, A., 607.  
1:*m*-Xylyl-3-methylpyrazolone (KLAUBER), 1891, A., 1363.  
*o*-Xylylmethylsulphine iodide (HJELT), 1890, A., 135.  
Xylylmethylthiohydantoin (MARCKWALD, NEUMARK and STELZNER), 1892, A., 150.  
*m*-Xylyloxamic acid (*oxalylxylylidic acid*) and its inner anhydride (MAUTHNER and SUIDA), 1889, A., 140.  
Xylylphosphinic acids,  $\alpha$ -*m*- and  $\beta$ -*m*- (WELLER), 1887, A., 825.  
*p*-Xylyl-phosphinous acid and -phosphonic acid and its nitro-derivative (WELLER), 1888, A., 835.  
*o*-Xylyl-phthalamic acid and -phthalimide (STRASSMANN), 1888, A., 474.  
*m*-Xylyl-phthalamic acid and phthalimide (BRÖMME), 1888, A., 1295.  
*m*-Xylylphthalide (GRESLY), 1886, A., 1029.  
*p*-Xylylphthalimidine (RUHEMANN), 1892, A., 474.  
*m*-Xylyltartronic acid (POPPE), 1890, A., 499.

*o*-Xylene, Me:Me=1:2; *m*-xylene, Me:Me=1:3; *p*-xylene, Me:Me=1:4.

*m*-Xylylthiocarbamide (BRÖMME), 1888, A., 1296.

*o*-Xylylthiocarbimide (STRASSMANN), 1888, A., 475.

*m*-Xylylthiocarbimide (BRÖMME), 1888, A., 1296.

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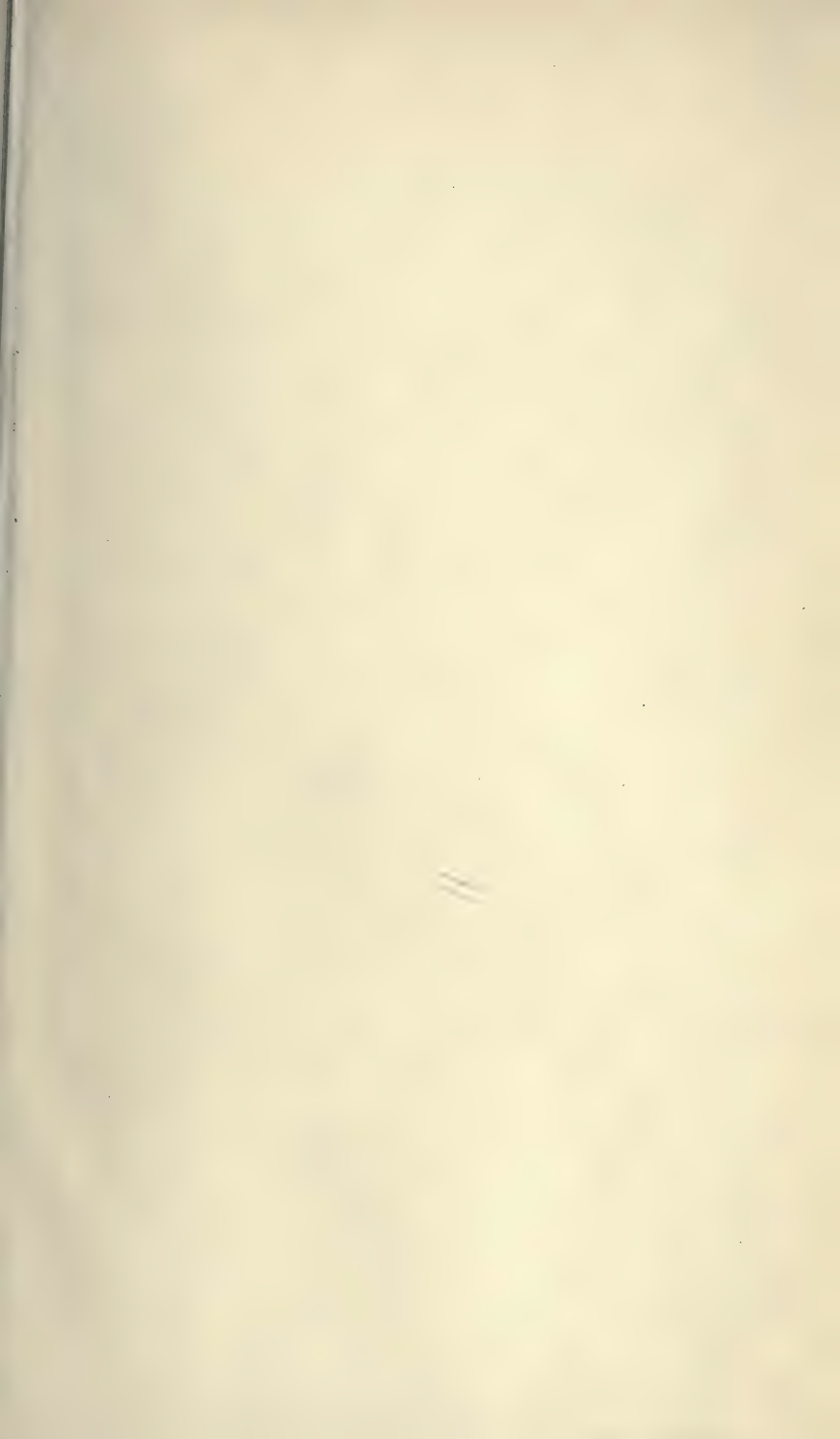
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